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Recoding Practices in Categorical Emergence: the “Rite of Spring” (1913) and the Bifurcation of Ballet

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Abstract

Focused on the function of categories, categorization research gives short shrift to their origin, which is assumed to result from strategic recombination and collective action. However, an important source of endogeneity is overlooked - that categories could be inherently related, forming oppositional pairs or arranged in classification hierarchies. This paper addresses the role of endogeneity in a conceptual model, where categories emerge through bifurcation of prior categories. This is provoked by practices of “recoding” - permutations of the “codes” of categories. These practices offer an alternative to the established dichotomy in the literature between code conformity and code violation. Illustrating these arguments is the archetype of “modern ballet” - the production of the “Rite of Spring”, choreographed by Vaslav Nijinsky and premiered in Paris in May 1913. By rewiring the codes of “classical” ballet, centered on elegance, lightness and flow, this choreography restricted movement, codifying a language of tension, strain and constraint. If research attests that actors borrow from categories in constructing new categories, this work suggests that categories may borrow from actors in constructing themselves.

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Abstract

Focused on the function of categories, categorization research gives short shrift to their origin, taken to result from strategic recombination. But a key source of endogeneity is overlooked - that categories are often related, arranged in classification hierarchies or oppositional pairs. Drawing on early research on categories and on complexity science, the paper proposes a model where categories emerge through bifurcation of anterior categories, provoked by practices of “recoding” - far-reaching permutations of the “codes” constituting categories. Recoding offers an alternative to the established dichotomy in the literature between code conformity and code violation. It is observable in the “archetype” – the earliest coherent form of a category. Illustrating the conceptual model is the archetype of “modern ballet” - the production of the “Rite of Spring”, choreographed by Vaslav Nijinsky and premiered in Paris in 1913. By rewiring the codes of “classical” ballet, centered on elegance, lightness and flow, the Rite restricted movement, codifying a language of tension, strain and constraint. If actors borrow from categories in constructing new categories, this study attests that categories may borrow from actors in constructing themselves. The main contributions are in addressing the role of endogeneity in category emergence, in elaborating an underlying practice and highlighting the methodological usefulness of the archetype.

Recent reviews of research on categorization have documented a remarkable array of concepts and approaches that have appeared over the last two decades (e.g. Glynn and Navas 2013, Vergne and Wry 2013). Against this conceptual variety, a thread running through much of categorization research is the key role attributed to categories as devices that help reduce uncertainty in markets (Hogg and Terry 2000) by facilitating the understanding and classification of offerings (Glynn and Navas 2013). The categorization process structures markets by minimizing the differences among category members and by maximizing the differences between the categories (Zuckerman 1999).

This emphasis on the role of categories as classification devices has led to ample scholarship on their consequences for firm performance (e.g. Zuckerman et al 2003, Rao et al 2005, Durand and Paoletta 2013), but has also contributed inadvertently to the limited attention devoted to their origin (Vergne and Wry 2013). This is beginning to change, as evidenced by recent studies of the formation of new categories (e.g. Kennedy 2008, Khaire and Wadhvani 2010, Navis and Glynn 2010). Common to this nascent research stream is the representation of emergence as a cooperative venture between organizations and their audiences, where organizations act strategically to develop new categories around codes and attributes that are discounted within existing categories (Vergne and Wry 2013). This approach, defined here as “categorical work”, resonates with strategic research and scholarship on institutional entrepreneurship, where prominent actors create organizational forms in conjunction with other actors or audiences by way of combinatory practices (Haveman and Rao 1997, Hargadon and Douglas 2001, Rao et al. 2005).

However, organizational and sociological research also provide reasons to question the degree to which categories derive from strategic action and from categorical work. Many social processes and outcomes are driven by indirect action (Chia 2011) and by self-organization, where initial conditions orient the behavior of actors, whose interactions aggregate as new outcomes (Macy and Willer 2002, Andriani 2011). Studies identify chains of spontaneous local adaptations underlying emergence at the network and organizational level (e.g. Padgett and Ansell 2006, Boland et al. 2011). But even more importantly, key sources of endogeneity and interdependence are either missing or poorly integrated in extant accounts of category formation. Consider the basic observation that categories are related to each other, paired in oppositional dichotomies or arranged in classification hierarchies (Rosch 1978, Rosch and Lloyd 1978). The inherent link between categories arranged in this manner implies that the

emergence of new categories is conditioned on the content of pre-existing categories (Rosch 1978). Failure to account for this form of interdependence may bias the representations of the costs and benefits associated with new categories and of the ways in which these are brought into existence.

This paper addresses the issue of endogeneity in category formation by proposing a model where categories emerge through fissure or bifurcation of anterior categories, provoked by practices of “recoding” - far-reaching permutations of the internal “codes” that constitute categories. In this logic, individual action may occasionally go beyond the established behavioral dichotomy between “code conformity” and “code violation” (Rao et al 2005, Durand et al. 2008), disrupting the configurations of categories in a manner amounting to “rewiring” of these codes, thereby accelerating the bifurcation of categories into subcategories.

This process is observable in the “archetype” – the earliest coherent form of a category. If past research is duly focused on the “prototype” - the most central member in a category (e.g. Rosch 1978, Hogg and Terry 2000), the “archetype” is more helpful in investigating the early stage of emergence, characterized by ambiguity and instability of evaluating principles, and the need to determine whether a novelty can be incorporated within the extant classification system or requires the creation of a new category. Classification tension of this kind is inherent in categorical emergence (e.g. Sgourev 2013).

The proposed model is illustrated with a historical case of the emergence of a new category – “modern ballet”, through the recoding of dominant choreographic codes in the early 20th century. The recognized archetype of modern ballet¹ is the production of the “Rite of Spring”, choreographed by Vaslav Nijinsky and performed first by the Ballets Russes. Its tumultuous premiere at the Théâtre des Champs Elysées in Paris on May 29th, 1913 provoked a riot in the audience, marking a deep cultural schism and affirming Modernist experimentation in opposition to the traditional aesthetic. Emergence occurred through bifurcation – by codifying modern ballet, the Rite of Spring simultaneously fostered the congealment of “classical ballet” as the foundational category. Starting with the understanding that relational oppositions of this kind are essential in categorization (Zuckerman 1999), this paper offers a substantively new approach to category formation, where emerging categories redefine and manifest underlying structural divides and classification hierarchies in a highly complex, autogenetic manner.

¹ The category that formed in opposition to “classical” ballet is alternatively referred to as “modern dance” or “contemporary dance”. I prefer “modern ballet”, as it highlights the categorical opposition “classical-modern”.

Endogeneity in Category Emergence

Scholarship tends to examine categorical dynamics in relation to the function that categories fulfill in markets as a classification device and an anchor for value judgments. Categories are portrayed as products of collective endeavors of sensemaking and differentiation that involve category members and audiences. For example, Navis and Glynn's (2010) analysis of the emergence of satellite radio highlights how members and audiences co-created the new category in a collaborative venture. The boundaries and evaluation principles of this category were established and legitimized through the mutual sensegiving and sensemaking activities of audiences and members (see also Kennedy 2008, Kennedy et al., 2010). In a similar manner, category members shaped the construction of meaning in the new category of "Indian modern art", by reinterpreting historical constructs in ways that enhanced commensurability, facilitating comparisons and valuation by audiences (Khaire and Wadhvani 2010).

In the dominant approach categorical emergence is discussed as the establishment of shared meanings of new market categories (Khaire and Wadhvani 2010), documenting how producers and consumers agree on the new category. As Negro et al., (2010, p. 9) observe, "research on categories is distinctive in its focus on meaning rather than structure". Undoubtedly, the shared meaning underlying categories is instrumental in enabling them to organize markets through classification (Glynn and Navas 2013). But if the establishment of shared meaning is a necessary condition for the successful functioning of categories, is it also so for the emergence of categories? In other words, may categories emerge in the absence of shared meaning?

The core theoretical argument of this paper is that the dominant assumptions in prior research need to be relaxed in two important respects, allowing for a greater role of ambiguity and endogeneity in category formation. Prioritizing shared meaning over structure is understandable in light of the need for clarification of the process of classification, but is potentially misleading when applied to the issue of the origin of categories, if the origin is defined through the function that categories ultimately come to fulfill. Posing shared meaning through strategic action as a constitutive principle of the formation of categories carries the risk of abstracting the ambiguity and autogenetic properties that characterize the emergence of substantive novelty in many social domains (Padgett and Powell 2012, Sgourev 2013).

The first step in this direction is a step back. The structural properties of categories are rarely discussed now, but featured prominently in early research on categories that elaborated the taxonomy

(ordered arrangement) of categories, which is usually (but not necessarily) hierarchical in nature. A classification hierarchy is a cognitive representation of the structural relationships between categories depicting how these are related to each other (Rosch and Lloyd 1978). It defines how the different categorical levels are nested within one another - for example, when firms are categorized by industry and by product type within industries (Rosch 1978). Thus, each category within a taxonomy is entirely included within another category (unless it is the highest-level category), but is not exhaustive of the more inclusive category. Categories at different levels vary in their abstractness and restrictiveness (Rosch 1978). They are arranged according to the levels of information they contain - the greater the inclusiveness of a category, the higher the level of abstraction. Hence, the categories carrying the most information are abstract categories that include members of less abstract categories. At higher levels categories are broad and general, at lower levels they are narrow and specific.

The substantive implications of the classification hierarchies are very important - the level of conceptual ambiguity and the opportunities for and costs of creating new categories are not the same at different levels - products or organizations enjoy greater leeway when it comes to combining elements from categories that share a common root (Rosch 1978). The interdependencies between categories in the taxonomy and their hierarchical positioning necessarily influence the formation of new categories. Categories emerge in relation to one another, such as when the category “art” split into “modern” and “classical”. Modern art developed in the early 20th century in opposition to what was perceived as traditional, figurative art (Sgourev 2013) and a further level down, “contemporary” art developed in reaction to modern art, undermining its foundations in a similar way to how modern art undermined the foundations of anterior art (Horowitz 2014). That categories are often created, defined and used in relation to preceding categories is a form of endogeneity that is generally overlooked, but that needs to be fully taken into consideration in assessing the role attributable to “categorical work” in emergence.

Let us take as an example the category “Indian modern art”, formed of three ordered elements: “Indian”, “modern” and “art”. Art is the “basic-level” category and the most ambiguous in nature. The most precise one is “Indian modern art”, based on the category of modern art and on the key relational opposition between art and non-art. The process of construction of this new category is described by Khaire and Wadhvani (2010, p.1282) in the following way: “*the category of “Indian modern art” was constituted through the efforts of art auction houses, who “capitalized on the changing discourse of*

modernism by introducing constructs and criteria for judging individual Indian artists and their works that were adapted from conventions used in judging modernist works of Western artists”.

Borrowing from a well-established Modernist language, the auction houses played a key role in the construction of the new category, but in view of the link to the anterior category, the magnitude of categorical innovation appears to be relatively trivial. Applying a Modernist template to a context where this style is unfamiliar or unusual is a relatively straightforward form of innovation by transfer, facilitated by preexisting templates and routines. However, it is removed in nature from the complex pattern of emergence of the fundamental category of “modern art”, which was not a direct product of “categorical work”, but resulted from interwoven processes of experimentation at multiple levels that reinforced the underlying schism between old and new forms of art (Cottingham 1999, Sgourev 2013). The distinction between established (Classical) and experimental (Modern) concepts and techniques runs through many contexts, such as in French gastronomy, divided between “old” and “new” cuisine (Rao et al, 2005). If this divide is a product of categorical work (Rao et al, 2005, Durand et al. 2008), it is also structural in occurring along fundamental cultural fault lines. That practices of mixing apply better to new than old types of cuisine is at least partly due to the enactment of preexisting cultural and cognitive templates that valorize experimentation and recombination, and facilitate categorical schism.

Categorical Bifurcation

Processes of schism or splitting are inherent in the construction of classification hierarchies, as testified by categorical pairs, such as Catholic-Protestant, capitalism-socialism or classical-modern, constituted through a historical process of splitting or bifurcation, whereby the new category emerges in relational opposition to the old one, by modifying or rewiring its fundamental codes. This form of endogeneity is hardly visible when the analytical focus is on the sensemaking or combinatory activity of actors and audiences. The danger of not accounting for the structural configuration of categories is the possibility that the instrumental role of sensemaking and combinatory practices in emergence is in response to opportunities emanating from classification hierarchies.

The suggestion that categories emerge from prior categories by splitting or bifurcation draws on observations in other fields, where bifurcation is an established occurrence. For example, it is well known that new technologies form nested recursive systems and that nestedness enables the discovery of new phenomena - by serendipitously bifurcating, these systems sometimes give rise to new markets

(Arthur 2009). The term “bifurcation” was introduced by Poincaré (1885) in mathematics. Referring to a branching process, it is used to describe any situation in which the qualitative, topological picture of the object alters with a change of the parameters on which it depends (Arnold 1972). In dynamical systems, a bifurcation occurs when a small change to the parameter values of a system causes a sudden 'qualitative' or topological change in its behavior (Blanchard, Devaney and Hall 2006). A bifurcation is thus a failure of the stability of an equilibrium.

The understanding of bifurcation as an essential way in which nonequilibrium brings order out of chaos is fundamental to the work of Prigogine (1996). He defines bifurcation as the branching of a solution into multiple solutions as a system parameter is varied - the system becomes unstable and at the bifurcation point, two new solutions emerge. Bifurcation requires two conditions - the first is that the system has to be far from equilibrium, and the second is that the equations governing the systems have to be non-linear. In the non-linear systems, small changes can have dramatic effects because their impact may be repeatedly amplified by self-reinforcing feedback. Critically, bifurcation is a source of diversification and innovation, as it marks the “creative moment”, when new systems emerge from the old ones (Prigogine and Stengers 1984).

A similar process, which incorporates the principle of a small change to parameters causing disequilibrium and bifurcation, is nuclear fission, which stands for a nuclear reaction or radioactive decay, in which the nucleus of an atom splits into smaller parts. Nuclear fission of uranium-235 can be triggered by the nucleus absorbing a neutron. The uranium splits up into two lighter nuclei and two neutrons are released. These neutrons can collide with other uranium nuclei to cause more fission (i.e. chain reaction). Nuclear fission is a form of nuclear transmutation, as the resulting fragments are not the same element as the original atom. Most fissions are binary fissions, producing two charged fragments.

A core objective of this analysis is to demonstrate the relevance of these processes or models to social life, describing at a reasonable level of accuracy the ways in which categories emerge by way of bifurcation. In this logic, the Rite of Spring served as the incident neutron, provoking the splitting of the atom (ballet) into “modern” and “classical” branches, in an oppositional pair persisting to this day. My argument is that categorical bifurcation was precipitated by practices of recoding, whose systemic impact was amplified by self-reinforcing feedback. In this perspective, the conceptual challenge is to

clarify how determination and chance, origination and path dependence co-exist (Padgett and McLean 2006). A necessary step along this way is the redirection of attention from the categorical prototype to the archetype, sacrificing clarity for ambiguity.

The Categorical Archetype

The prototype is the most central member in a category (Rosch, 1978). As Hogg and Terry (2000, p. 123) define it, the prototype is a fuzzy set that captures the context-specific features of group membership, in the form of representations of exemplary members or of ideal types. Studies attest that prototypes are instrumental in evaluation - greater similarity with a categorical prototype is beneficial to organizations in their founding, legitimacy and effectiveness (Hannan et al., 2007, Hsu et al., 2009). In distinction to the prototype, the archetype (from the Greek *arkhetupon* – a “primitive model”) can be defined as the early model of a category or the original set of features from which arise subsequent varieties. Archetypes feature prominently in literary criticism, where they are thought to determine the form and function of literary works (e.g. Barth 1970).

The methodological value of the archetype is in highlighting the period before the stabilization or “institutional consolidation” of categories (Hsu and Hannan, 2005), when these are recognized as a salient unit of analysis by a critical number of members or external audiences (Vergne and Wry 2013). This period is characterized by enhanced ambiguity. When a new category splits from an existing one, the two co-exist for some period of time in a state of indetermination, when organizations or products are positioned in-between the old and the new. The difficulty of judging whether the new offering can be subsumed within the existing category or deserves a new designation impedes evaluation. This kind of classification tension can be observed in many contexts, such as cultural (Sgourev 2015) or political transformation. A good example is the scholarly debate on the nature of the post-communist transition, when the key question was whether the former communist countries were on their way to capitalism, whether they were in-between communism and capitalism, or whether they belonged to an altogether different category that was irreducible to either of the anterior categories (e.g. Nee 1996, Stark 1996).

The ambiguity resulting from unresolved categorical affiliation is typically reduced with the crystallization of the archetype, which gives shape to the emergent category, whether it was created *de novo* or it split from another category. The archetype formalizes and makes tangible the features of the new category, it announces the schism, the moment when the new is still embryonic, but is apart

from the old, asserting its distinction. The substantive significance of the archetype is in encoding the fundamental differences between the categories in a working model that can be used in classification. Thus, the archetype marks a necessary stage in the construction of clarity and meaning in categories. Most importantly, it embodies the ways in which the codes constituting the anterior category were re-arranged to form the distinction that propelled the congealment or crystallization of the new category. I define the practice of re-arranging or re-wiring of the constitutive codes of categories as “recoding”.

The Practice of “Recoding”

Codes are materializations of meanings and of the similar features that category members share.² They specify the properties that organizations can legitimately possess (Rao et al 2005). A code is both a set of signals and a set of rules of conduct, guiding behavior by focusing audiences’ expectations (Polos et al, 2002). It is well-established that violations of the codes generally reduce the valuations of category members by audiences (Hsu and Hannan, 2005, Hannan et al, 2007). However, social mechanisms of segregation that maintain categorical boundaries through conformity are offset by blending processes, contributing to the erosion of these boundaries (Hannan and Freeman 1989, Rao et al 2005). Blending and recombination are essential in creative activity (Padgett and McLean 2006, Sgourev and Althuizen 2014) as well as in more routine processes of modification of the content and boundaries of categories. Copying or borrowing elements across categories contributes to attenuating categorical boundaries and reducing the segregation pressure from external audiences, disassociating penalties and rewards from categorical transgression (Durand et al., 2007).

The changes occasioned by blending practices are of two principal types - code-preserving and code-violating (Rao et al 2005). The former designates the type of change that preserves established codes, respecting the categorical boundaries and principles of evaluation, while the latter corresponds to a variation in the product range that breaks with past signals and embraces a rival social code (Durand et al. 2007). Organizations respect and disrespect categorical boundaries at the same time, abiding by and upsetting categorical orders by recombining elements within and across categories (Rao et al 2005 Durand et al. 2007). If code-preserving changes uphold the categories, code-violating changes imply a shift from one category to another.

² As an example, Rao et al. (2005) describe codes that characterize and differentiate classical from nouvelle cuisine: culinary rhetoric, cooking rules, chef role, ingredients and menu organization.

This dichotomy has proved its value in categorization research, but has notable limitations. The assumption that category members can easily discriminate between the two types - that they have a good understanding in advance of what changes are code-preserving and what are code-violating, is questionable, especially in conditions of high ambiguity. The interpretations of categorical violations are contingent on many social factors, such as actors' status, role expectations or audience preferences, whose interdependence is far from straightforward (Phillips and Zuckerman 2001). Consequently, the difficulty of knowing in advance the reaction of the audience is a constant source of uncertainty and anxiety for category members, which is inherent in processes of evaluation (Zuckerman et al, 2004).

Another source of uncertainty relates to the impact of the code violation. A basic sociological observation is that a normative violation may have disproportionality large social impact if it affects the behavior of others through imitation (Macy and Willer 2002, Centola et al, 2005) or if it provokes normative change. As categories represent a complex hierarchy of interrelated codes (Bernstein 1971), one can argue that a code violation is most consequential when affecting the underlying configuration of codes, by provoking changes in core parameters. Defined as "recoding", this type of violation goes beyond the simple embrace of or shift to a rival social code (Rao et al 2005, Durand et al. 2007). The practice of "recoding" stands for reprogramming or rewiring codes into a new configuration or logic.³

The theoretical importance of this practice is in providing an alternative, endogenous model of categorical emergence to practices of bricolage, where actors selectively draw on categories as cultural elements or toolkits, tinkering with and combining elements in accordance with their strategic intents (Durand et al. 2007, Navis and Glynn 2013). Categories are not merely "raw material" for bricolage, they are also contexts for the unfolding of spontaneous processes of interaction and reconfiguration. Actors do not necessarily set out to create new categories, but experiment with existing ones, trying to make them fit their orientations or preferences better, and in doing so, they enact or trigger changes to the codes that result in unorchestrated creation of categories. As "emergence" studies show, complex social transformations can be channeled through subtle adaptations and processes of rewiring that are neither understood by the participants, nor triggered with a clear intent (Padgett and McLean 2006). In

³ The concept of "recoding" was inspired by the popular French expression "bousculer les codes", which is often used to designate "overhaul" or "revolutionize" something by refusing to play by the rules and instead rewriting or revamping the rules, so that a qualitatively new configuration or organization appears. This is a distinct form of action from the simple violation of the rules, as violations may have little or no tangible social consequences.

this perspective, local adaptations and relatively small changes trigger chains of adaptations that lead to the emergence of new forms (Padgett and Powell 2012). Along these lines, I argue that the practice of recoding represents an important mechanism of categorical emergence through the rewiring of code configurations and the impetus it gives to the crystallization of archetypes.

Categorization research is largely focused on the consequences of violations for actors, but rarely for categories. Changes in the configurations of categories tend to be presented as a product of strategic combinatory practices. Without denying their importance, this analysis highlights a different trajectory of emergence, endogenous in nature, based on practices of recoding, visually represented in Figure 1. It is undoubtedly the case that actors borrow from categories in constructing new categories; however, my analysis of the bifurcation of ballet in early 20th century Paris reveals that categories may also borrow from actors in constructing themselves.

Figure 1 About Here

Method

The case of the original production of the Rite of Spring is used in this paper as an illustration of the conceptual model. The use of a case as an illustration is not intended to validate an argument, rather, the objective is to demonstrate its empirical relevance and plausibility, illustrate the workings of the underlying mechanism and suggest ways to further develop the theoretical model (Siggelkow 2007). The narrative presents a detailed account of a particular recoding practice, as reflected in Nijinsky's choreography. It is based on a systematic survey of research on three subjects – ballet, the Rite of Spring and the Ballets Russes. The survey encompassed scholarship in dance research and art history, and personal memoirs. I pursued complete coverage of the body of research on the Rite, consulting books and articles by artists, critics and scholars in English, French and Russian. Key observations were cross-validated across accounts. The research goal was to examine in as much detail as possible the concrete mechanisms of emergence of a new category of dance in Paris in the early 20th century.

The analytical focus on one production is justified by its extraordinary historical weight and significance to Modernism. The scope of the narrative is limited by my substantive interest in ballet - relevant developments in other artistic fields are acknowledged, but not pursued in depth. The Rite represents a link in a complex social process that led to the rise of Modernism in the early 20th century. Recognizing the links between ballet and art (Cottingham 1993) or ballet and literature (Jones 2013),

my attention is concentrated on factors internal to ballet and on their role in categorical emergence. The Rite of Spring is celebrated too for the groundbreaking musical score composed by Stravinsky, which played a part in provoking the discontent of audience members. However, I refrain from discussing the music, as it is not directly related to the choreographic innovations lying at the center of my analysis.

The substantive emphasis is on the choreography of the Rite.⁴ After a brief presentation of the history of ballet and the context of the Rite of Spring, I document how its choreography modified the code configuration of ballet, resulting in the creation of a Modernist template. The analysis shows how the set of principles that codified movement on stage in late 19th century ballet underwent a profound overhaul with the choreographic innovations manifested in the Rite. This is followed by a section that provides additional evidence reinforcing the validity of central concepts and arguments in the analysis.

Ballet: A Brief History

As a genre of the performing arts, “ballet” traces its origins to the Italian Renaissance courts in the 15th century, where it typically featured in sumptuous wedding celebrations. Upon marrying the French king Henri II in 1533, Catherine de Medici brought to the country her appreciation for ballet, encouraging the presentation of dance sequences at the Royal court. The foundations of what is today referred to as “classical ballet” were laid out in the royal court under Louis XIV, himself a dedicated performer who accorded to the new art form his royal patronage and financial support. In 1661 Louis XIV founded the Royal Dance Academy to establish formal standards and certify dance instructors. This is reflected in the historical use of the French language in the ballet vocabulary.

Ballet established itself as a distinct artistic genre in the 18th century. New ballet techniques and principles of movement developed, to help the performers articulate the feelings and thoughts of the characters. By the middle of the 19th century, ballet’s center of gravity started to move to Russia. The splendor of the Imperial Theatres and the financial support of the Imperial Court contributed to the flourishing of the art form, marked by the ravishing ballets of the resident French choreographer Marius Petipa (1818-1910). The apex of the Romantic era in ballet was reached toward the end of the 19th century, with such productions as *Swan Lake* (1876) and *the Nutcracker* (1892). Yet, this is also

⁴ Following Järvinen (2013), choreography is defined as the spatial and temporal arrangement of movements and stillness, gestures and steps, rhythms and paces of a body or a group of bodies. It stands for an aesthetic practice with a history and a canon of authors and masterworks and conventions acquired through education and practice.

the period when interest in ballet declined precipitously in Western Europe, increasingly viewed as a tired and conservative art form that was no longer responsive to contemporary social developments.

The beginning of the 20th century witnessed the emergence of several experimental dancers, most notably Isadora Duncan and Loie Fuller, who pioneered new forms and practices of movement. Their performances disregarded the strict vocabulary that characterized ballet at the time, pursuing an extended set of movements and greater freedom of artistic expression. However, the most resounding reaction against the perceived inability of classical ballet to incorporate the contemporary world and express a subjective vision were the avant-garde ballet productions of the Ballets Russes (1909-1929). Originating in a circle of progressive intellectuals and artists in late 19th century Saint-Petersburg and headed by the visionary producer Sergei Diaghilev (1872-1929), the Ballets Russes transformed the world of dance as no one had done before or since (Garafola 1989). Bringing together choreographers, artists and composers, their productions revived the interest of European audiences in ballet through visually captivating, exotic and colorful productions, executed with grace and precision that had no contemporary match. The exciting performances and groundbreaking choreography led ballet out of classicism and into the modern age of dance. The Ballets revitalized opera, dance and scenography, influencing developments in fashion, furniture and textile (Pritchard 2011). The key achievements of the Ballets Russes were the synthesis of the arts and the renewal of the formal language of expression (Zilberstein 1982, Cariani 1999). No ballet reflects these achievements better than the *Rite of Spring*.

The Rite of Spring

The premieres of “*The Afternoon of a Faun*” (1912) and “*The Rite of Spring*” (1913) were a turning point in the development of a new ballet language that experimented on everything - on subject matter, music, movement, choreographic style, stage space, scene design and costumes (Garafola 1989). At the crossroad of diverse influences, “*The Afternoon of a Faun*” spanned historical periods. It featured late 19-th century elements of Symbolism and Impressionism, gestures borrowed from ancient Greek vases and Egyptian frescoes, and stylized pacing and pauses characteristic of performances in theatre (Munro 1951). Through sequences of contorted, angular, unnaturally restricted movements this kind of choreography introduced the public to a modern language of expression, stripped of the lush elegance of the Romantic era and seeking to uncover the bare “essence” of human movement and existence. If

the movements of the Faun departed from the dominant ballet vocabulary, the ballet was “transitional” in its nature, embedding avant-garde ideas in a texture of late-Romantic elegance, combining in a new way elements that were already familiar to the Parisian public (Sgourev 2015).

The veritable break with the past occurred at the premiere of “The Rite of Spring” on May 29th 1913, marked for the ages by the rioting of the audience. The opprobrium started shortly after raising the curtain and persisted throughout the performance. Skirmishes were reported between fans and foes of the new style, the hoopla drowned out the orchestra, dancers could barely hear the music, the lights were turned up midway through the performance and the police was (allegedly) summoned. There is still debate among scholars as to whether Stravinsky’s music or Nijinsky’s choreography⁵ contributed more to the opprobrium. Stravinsky’s highly irregular musical score, characterized by jagged, violent and unpredictable rhythmical forms, tested the patience of the unaccustomed audience members, but it is generally thought more plausible that the riot was provoked by the choreography, as Stravinsky’s music was well received at subsequent concert performances (Chua 2007, Duffy and Atkinson 2013).

The Rite of Spring lacked a consistent plot, it represented a series of events or situations that were inspired by rites in pagan Russia, at a time when ancient Slavic tribes would sacrifice a young maiden to the gods in spring to ensure the fertility of the soil. It celebrated a pre-civilized state, when people were driven by the raw energy of life and Nature. The depiction of an eternal cycle of life and death was at odds with the idea of civilized progress; it was a current practice in avant-garde circles to use primitivist models as a critique of contemporary culture, reflecting the desire to mend the rift with Nature caused by industrialization (Jordan 2013). A Modernist spirit emanated from the recovery and aesthetization of the primitive, as an expression of raw emotion and the violence needed to expunge contemporary civilization from its disillusionment with its own sterility (Jones 2013, pp. 111). But if weaving together ancient rituals and modern art was inspired by the work of Gauguin or the Cubists, the Rite of Spring represented a particularly incendiary mixture of the ancient and barbaric, on the one side, and the modern and sophisticatedly complex, on the other (Dakuser and Zimmerman 2013).

The choreography was grounded in archaeological documents and primitive Slavic paintings collected by Roerich, in which the characters were contorted, with the knees turned in and the arms

⁵ Igor Stravinsky (1882-1971) composed the music, Vaslav Nijinsky (1889-1950) conceived the choreography, while the costumes and décor were the work of the famous Russian ethnographer Nicolas Roerich (1974-1947).

twisted back (Hodson 1986). By taking ballet technique back to its roots, Nijinsky introduced the public to modern styles of movement inspired by ancient wooden idols (Hodson 1986). The ballet had a geometric design of motion, based on circles, concentric circles, squares, and circle-in-the-square, which had antecedents in ancient ritual dances, but also resembled contemporary abstract artworks. The role of the primitive in the Rite was to allow for experimentation with form, to find an excuse to do away with those aesthetic qualities that were usually seen as ontological to ballet: grace, harmony, lightness and flow (Järvinen 2013, p. 76).

The radical rethinking of the ontological principles produced a powerful cultural shockwave. Many perceived it as ridiculous, as a freakshow contrary to the art of dance, as it was “ugly” and was “not dancing” (Dakuser and Zimmerman 2013). Perhaps the emblematic reaction is by the critic Pierre Lalo: “*There is no, in all of the Rite of Spring, a single line, a single movement of a single character that has the appearance of grace, of elegance, of lightness, of refinement, eloquence and expression, everything is ugly, heavy-handedly, plainly and consistently ugly* (Le Temps, June 03rd 1913.) In his judgment, Lalo relies on a set of qualities that were expected of ballet to be recognized as art - “grace, elegance, lightness, nobility, eloquence and expression”, concluding that Nijinsky's choreography was not ballet. The sentiment that the Rite was not simply bad ballet, but was not a ballet at all, was widely shared at the time (Savenko 2013) and is a clear indication of the emerging categorical split that left both advocates and opponents convinced that something unique was happening. The ambiguity over the nature of the ballet made it appear as “un-art and art at the same time” (Brandstetter 2014).

For some, it was a promising beginning, but for most, it was a brutal ending. Even supporters recognized that “everything possible seems to have been done to make the poses as awkward, uncouth, and primitive as could be” (Beaumont 1940, p. 74). What the majority demanded from a ballet was a vision of elegance and beauty, rather than the violent expressive performance that the Rite constituted. Rejecting traditional forms and the self-evident nature of progress and civilization, it embraced vitality and the perception of existence as continuous flux. Nijinsky's choreography articulated the primitive and unconscious energies within the individual whose representation had been heretofore avoided. For him, dance was the means through which the suppressed inner self and latent forces could resurface. If many in the audience felt that this paradigm undermined the world they lived in, they were not wrong. The outbreak of the First World War and the outpouring of atavistic, destructive energy, attributed a

prophetic quality to the Rite of Spring, as the concluding part of an era and a harbinger of a new one.

Table 1 About Here

Classical and Modern Ballet

To clarify the nature of the categorical bifurcation, this section describes how the Rite departed from conventional ballet vocabulary. The main differences between the codes of “classical” and “modern” ballet (as manifested in *The Rite of Spring*) are summarized in Table 1. The choreography of Nijinsky completely shifted the balletic technique with which dancers were familiar (Hodson and Archer 2013). In classical ballet there was a controlled gracefulness to the performances that “combines finesse with technical virtuosity. Clear gestures alternating with tiny, swift footwork, fully rounded arms, and jumps that cut through space” (Reynolds and McCormick 2003, p. 37). The Rite required the dancers to invert their technique, with toes turned in and elbows glued to the ribs (Hodson and Archer 2013, p. 22). Breaking with the tenets of romantic ballet, where grace, lightness and flow constituted the beautiful, Nijinsky’s choreography restricted (or minimalized) the movement of dancers in order to maximize the impact. In this balletic language of constraint, strain and tension, the positions were often unfamiliar and “unnatural”, as an early form of experimentation with the limits of the body (Duffy and Atkinson 2013).

Through the principle of restriction, the choreography retains the energy by linking together concise movements that remain grounded in the body. This heralds some of the principal features of modern dance: the containment of emotion in the body, which serves as the source of dramatic tension (Hodson 1996). As Duffy and Atkinson (2014, p.101) note, Nijinsky was sketching out the first steps of modern dance with an analytical approach similar to Cubism, where the body and its movement is broken down into distinct planes and is separated from natural expression. Similar to how the Cubists compressed in a single moment different aspects of an object (Sgourev 2013), the new choreography presented different views of the human body simultaneously, borrowing from Egyptian frescoes that portrayed frontal and lateral views of the human body in the same image.

Järvinen (2013) summarizes the distinctive movement qualities (or codes) associated with the new type of choreography as 1) simplicity, 2) asymmetry, 3) repetition, 4) stillness, and 5) submission to gravity. All of these qualities refuted the established ontological premises of ballet. At the time, it was self-evident that natural movement on stage was always learned and cultivated, striving for grace,

beauty, harmony and lightness. The untrained, undisciplined body was offensive, 'natural' or 'realistic' movement was not acceptable in dance that claimed to be art (Järvinen 2013, p. 78). Nijinsky boldly eliminated the codified graceful arm gestures and traditional movements - there were no pirouettes, jetés or arabesques (Brandstetter 2014). Instead, he limited himself to the simplest vocabulary - plain walking, running, simple jumping with both feet and occasional stomping (Hodson 1986). The dancers walked, inclined and knelt, in abrupt, angular movements that often ended in trembling (Brandstetter 2014). By breaking up movement and bringing it back to simple gestures and to basic steps, Nijinsky caused expression to return to ballet (Rivière 1983).

Simplicity was also pursued through spatial and textual patterning, dominated by an interplay of triangles, arcs, and lines, arranged in asymmetric configurations that contravened the classical codes of proportion and symmetry. The choreography utilized counterpoint, setting one group of dancers against another – one moving lightly, another heavily, one slower than another (Järvinen 2013, p. 84). Shifting asymmetrical configurations of circles, lines and closed blocks disrupted the “natural” flow characteristic of classical ballet, originating the halting breaks of line and prolonged standing that are essential to contemporary dance (Brandstetter 2014).

Repetition was another notable transgression of classical codes. The first scene of the ballet shocked, because the dancers kept jumping in place and stomping the ground, leaving the impression in many audience members of a non-event, of doing nothing in particular (Järvinen 2013). Repetition created a sense of the performance reaching a dead-end and of going nowhere – for example, the critic Gustave de Pawlowski complained of having to suffer through two acts of primitives doing nothing (in *Comoedia* May 31st, 1913). It is only in the next decades that the idea took root that what is repeated is not exactly the same and that repetition can add to, rather than deduct from, meaning (Lepecki 2006). The Rite presaged the later modernist dance that experimented with repetition as a means of release: jumping in place, running in circles and spinning on an axis to transform energy states (Hodson 1985).

Another way in which the new choreography broke the “natural” flow of dancing was through stillness, by creating counterpoints on stage, such as by placing one still group against another moving or an individual standing still amidst moving dancers (Järvinen 2013, p. 95). Creating the impression of movement through immobility was not invented by Nijinsky, but lied in stark contrast to accepted ways – traditionally, dancers stood still or moved to the sides when the soloists performed (Järvinen

2013, p. 96). The use of sudden, complete stillness of the entire ensemble onstage is a striking device that must have puzzled audiences at the time.

Movement in classical ballet is defined by the pursuit of lightness and elegance, giving the impression of immateriality and volatility. From this angle, the instances of stumbling and falling that featured prominently in Nijinsky's choreography, were inevitably perceived as blatant mistakes, as technical deficiencies; falling was material and awkward, drawing attention to the weight of the bodies conditioned by gravity (Järvinen 2013). Dance that did not pretend to lightness and elegance violated core principles of movement in classical ballet, provoking allegations of ugliness and awkwardness. In classical ballet dancing excellence was evaluated by way of technical prowess, manifested in the extent to which virtuosic movements, such as a series of pirouettes or a difficult leap, were executed with precision and apparent ease. The choreography of the Rite renounced the principle of excellence as silent and effortless dancing, instead demonstrating effort and downplaying virtuosity, as dancers visibly struggled to maintain contorted body positions (Hodson 2013). Seeking to assert control over the body, the Rite's choreography showcased effort as an instrument of expressing emotional states.

Inaugurating key principles of modern dance, Nijinsky's choreography attributed to everyone a slightly individualized role, with different sequences for different dancers, with no gender division in roles and with everyone dancing from the beginning to the end. Movements in the Rite are not gender-specific as in classical ballet, where particular steps and movements are classified by gender (Hodson 2013, p. 150). Couples feature prominently in classical ballet (*pas de deux*), but are only momentary in the Rite (Hodson 2013). Nijinsky's choreography "democratized" ballet - if classical ballet puts one or two main characters center-stage with the *corps de ballet* moving in the background, the Rite featured several groups of dancers moving together. The *corps de ballet* were thus "promoted", dancing from the beginning to the end (Hodson 1996). In an unprecedented choreographic innovation, the Rite had no stars to dominate the audience's attention or principals whose story they could follow - in casting the work, Nijinsky did not engage the top tier of company dancers (Järvinen 2013).

The Rite of Spring began the modern tradition of making dance about the present, advocating individual expression unconstrained by conventions (Hodson 1996). The role of the audience changed – it now needed to complete the meaning of the dance sequences (Jones 2013), while dancers were no longer focused on presenting themselves and making a connection with those who are watching, as in

classical ballet. Rather, dancers were focused on connecting with nature, to the effect that the majority of the audience felt excluded when dancers were standing with their backs to them (Hodson 1996). As a final transgression, the ballet ended in a pessimistic tone with the sacrifice of the maiden, unsettling the deeply-entrenched cultural assumption that the key function of ballet was asserting beauty and life.

Validity: Impact, Bifurcation and Recoding

The appropriateness of the case of the Rite of Spring as an illustration of the arguments depends on the validity of the main concepts and events in the analysis. To reinforce validity, I provide evidence of quantitative and qualitative nature on bifurcation, on the practice of recoding and on the Rite's impact. The most important step in this regard is ensuring the validity of categorical bifurcation - proving that there was indeed a bifurcation and that the Rite of Spring is what provoked or triggered this process.

Figures 2 and 3 About Here

Evidence for the bifurcation can be obtained through the Google Books Ngram Viewer – an online service that permits the tracking of the frequency of the appearance of a keyword in books in many different languages since the 19th century. Considering the weight of the French language in the history of ballet and the fact that the described events took place in Paris, I used the categorical pair “ballet modern - ballet classique” as input for my search. The results for the 20th century (Figure 2) reveal a clear pattern of co-evolution or co-appearance of these words, following trajectories of very similar shape over the course of the 20th century. The occurrence of the split becomes apparent toward the end of the second decade of the 20th century. The two categories emerge abruptly, with “ballet classique” being more popular than “ballet moderne”, as could be expected. For further insight, Figure 3 zooms in on the early period (1900-1930). It reinforces the impression of the occurrence of a split, allowing the identification of the starting point of the sudden rise in their popularity as 1916-1917. The impact of the war and the customary publication delay imply that the trigger for the split can be located in 1913 or early 1914. By far the most resounding cultural event in this period in France was the premiere of the Rite of Spring.

Similar to Picasso's earliest Cubist painting *Les Femmes d'Alger* (Sgourev 2013), the Rite of Spring is a universally acknowledged breakthrough. These creations are Modernist milestones (Savenko 2013), but the Rite had much greater cultural impact than the painting, as it was literally on-

stage, instantly capturing the attention of European audiences. It was a “seismic event” (Brandstetter 2014) that launched a century (Dakuser and Zimmerman 2013), asserting itself as the defining work of international Modernism (Cross 2013).

The Rite is “the most celebrated dance of, probably, all time” (Jordan 2013, p. 221). Even at the time it was seen as important more for the potential it showed, than as a finished piece in and of itself (Järvinen 2013, p. 99). It unleashed a torrent of modernist primitivism in its wake (Rabate 2007) and has since inspired the most reinterpretations of any ballet (Hodson 2013). Studies have registered 185 versions of the Rite over the period 1913-2008⁶. It has been staged by a wide variety of classical and contemporary choreographers across the world and has become a staple of the contemporary ballet repertory, counting from 250 to 300 performances annually (Weir 2013).

There is general agreement in scholarship that the Rite marked a turning point in ballet history. It heralded the birth of Modernism in classical dance performance (Weir 2013, p. 113), representing a break with classical ballet, rather than a continuation of its principles (Duffy and Atkinson 2014, p. 103). Nijinsky’s outright and aggressive revamping of the elements of classical ballet ushered ballet into Modernism (Weir 2013), laying the groundwork for the emergence of a new type of performance that would subsequently be categorized as “modern dance” (Scholl 1994, Garafola 2014). However, it should be reminded that this new category did not emerge “de novo”, as it was derived from classical ballet. As scholars observe, the choreography of the Rite refers back to classical ballet (e.g. Acocella 1992, Hodson 1996, Jordan 2013). Most importantly, Nijinsky was a star of “classical” ballet who was proficient in its language, which he rearranged from within - not by borrowing from other categories or by recombining elements, but by rewiring the principal codes, reinforcing contrast and opposition.

This argument is supported by observations of dance scholars. For Hodson (2013, p. 152), the choreography was cognizant of reigning conventions, but dismantled them, deconstructing movement into formal sequences that opened up vast new possibilities for experimentation in the performing arts over the next decades. This choreography treated body movements as an expressive resource, similar to words in literature in the ways in which these can be deconstructed and reconfigured, giving rise to new principles of movement (Jeschke 2013, p. 140). In this sense, Nijinsky created first the language

⁶ The University of Roehampton database that contains the record for the Rite of Spring is accessible at: http://urweb.roehampton.ac.uk/stravinsky/full_music.asp

and then the ballet (Hodson 2013), designing a model for the renewal of language over the years since then (Cross 2013). Scholars emphasize the complex nature of the underlying practice of recoding that proceeded by “reworking of classical forms” (Jones 2013, p. 41), by “reversing the “positions” of the academic dance” (Hodson 1986, p. 7) and by “transformation of the codes of representation” that led to “bursting the bounds of conventional methodologies” (Dakuser and Zimmerman 2013, p. 75).

It should be underlined that in practices of recoding control is only partial. The rewiring of codes may prove inconsequential, may lead to a renewal of the category or may trigger bifurcation. Nijinsky did not set out with a grand plan to “invent” modern ballet, the choreography proceeded in a series of experiments, trying to find the appropriate sequence and type of movements to articulate a rather loose conception (Hodson 1996). The productions of the Ballets Russes were generally oriented toward novelty that dazzled, but Diaghilev’s intention was always to embed the present in the past, to reinvent ballet, but in a way coherent with existing artistic forms, thus reconciling the old social order with the avant-garde (e.g. Garafola 1986, Sgourev 2015). Radical novelty had value for the company as a generator of publicity, which was offset by the higher production costs⁷ and audience resistance. Unsurprisingly, Diaghilev had a crisis of avant-garde confidence after the scandal of the Rite, and eventually yielded to pressure from theater directors to abandon the modern ballets (Hodson 1996).

The Rite precipitated categorical bifurcation in an “emergent” manner (Padgett and McLean 2006, Centola et al, 2005) - the resounding consequences were never clearly intended or envisioned. In a parallel to nuclear fission, the Rite served as an incident neutron that provoked a categorical split, releasing tremendous energy in the process and then disappearing (Hudson 1996). The emergence of a new category that defined itself in opposition to the conventions led also to the clarification of the nature of traditional, “classical” ballet and of what differentiated it from the other member of the pair. The clarification of the boundaries between established and avant-garde, “modern” and “classical” in ballet occurred over the next decades, but was set in motion by the archetype that constituted the Rite. As an archetype it reflected broad cultural trends, summarizing the break with principles of coherence and fullness of meaning affecting the arts at that time, but the connection to social and cultural factors cannot deny its uniqueness (Dakuser and Zimmerman 2013). Nijinsky’s choreography crossed the

⁷ As Taruskin (2013, p. 272) notes, “The Rite was expensive. It required nineteen more musicians than any other score in the Ballet Russes repertory, and many extra rehearsals. Canceling it seemed an inevitable commercial decision”.

threshold of Modernism (Garafola 1986, p. 74), changing how dance as an art form was ontologically defined and making for the first time choreography a major topic of critical discourse (Järvinen 2013).

The concept of the categorical archetype provides a unique perspective on the most enduring issue surrounding the Rite - what caused the scandal at the premiere? A scandal is a collective outburst of outrage caused by a public norm transgression that is experienced as an offence by an audience (e.g. Adut 2005). As often observed, the scandal of the Rite was facilitated by the polarization between the guardians of traditions in the audience and the proponents of the avant-garde – or the aesthetes versus the elegants (Dakuser and Zimmerman 2013). What divided them was the attitude toward the new art. That this latent structural divide in French society (Sgourev 2013) surfaced at the premiere might be to some degree a result of the “archetypical” nature of the production, highlighting the purity of contrast between the established and emerging categories, and the incompatibility of their codes. The Rite was a concentrated expression of core principles of Modernism (Cariani 1999) that heretofore circulated at the margins of French society (Sgourev 2013) and that were thrust onto the main stage for the first time. As sociologists note, scandals provoke moral positioning and aid in clarifying - and dramatizing - lines of normative disagreement or conflict (Jacobsson and Löfmarck 2008). Scandals make visible the norms that make up the moral order of society, based on the categorization of the world into what is deemed acceptable or not. The scandal at the premiere could have been provoked by the fact that the Rite made the Modernism of modern art highly visible in an altogether unprecedented manner (Rabate 2007), provoking clarification of positions and inciting polarization (Collins 2008). As Weir (2013) remarks, the Rite was tangibly outside the audience’s categorical scheme and the ensuing anomie must have been unsettling. The scandal placed the seal of revolutionary innovation on the Rite and singled it out as epoch-making, while normally the epoch-making status is given only after decades (Savenko 2013). Borrowing from Prigogine’s (1996) emphasis on the irreversibility of the most important and interesting processes in Nature, one can argue that the scandal was fuelled by the wide realization of the irreversibility of the ongoing cultural transformation, occurring in far-from-equilibrium conditions.

Conclusions and Future Research

Changes in classification systems play an important role in the evolution of markets (Hsu and Hannan 2005). These changes have been typically presented in the categorization literature as emanating from

bricolage practices, drawing on categories as cultural toolkits, tinkering with and combining elements in accordance with strategic intentions (Durand et al. 2007, Navis and Glynn 2013). This perspective, however, gives short shrift to the structural aspects of classification. Categories often represent linked elements in classification hierarchies (Rosch 1978, Rosch and Lloyd 1978), forming oppositional pairs in some cases. More often than is recognized, categories emerge by splitting from anterior categories, retaining an inherent link that affects the speed and trajectory of the evolutionary process. As the paper attests, incorporating this form of endogeneity and bringing structure to bear more directly in our work permits a better understanding of the complex ways in which categories emerge. The contribution is in addressing explicitly the role of endogeneity in emergence, in elaborating a practice underlying this process and in highlighting the methodological usefulness of the archetype in the study of emergence.

Focusing on the consequences of violations of codes for categories rather than for actors, this paper offers an alternative model of categorical emergence based on a bifurcation process, provoked by practices of rewiring of categorical codes (“recoding”). We have solid evidence that actors borrow from categories in constructing new ones (Rao et al. 2005, Durand et al. 2007), but the reverse is also conceivable – that categories may borrow from actors in constructing themselves. In this framework, inspired by early research on categories ((Rosch 1978, Rosch and Lloyd 1978) and by scholarship on complexity and organizational emergence (e.g. Prigogine 1996, Axelrod and Cohen 2000, Padgett and Powell 2012), new categories derive from the bifurcation of anterior categories, as a result of the aggregation of modifications to underlying codes. These modifications do not have to be intentional - actors experiment with existing categories, trying to make them fit their orientations or preferences better, and in the process, enacting sequences of code permutations or structural rearrangements that accelerate categorical bifurcation.

The unfolding of this process was illustrated through the case of the Rite of Spring. Scholars observe that its premiere marked the exact moment when underlying cultural changes associated with Modernism tipped into the mainstream (e.g. Hodson 1996, Cottington 1998), giving rise to altogether new categories in the cultural landscape. Focusing on the choreography, the analysis depicted the Rite as an experiment gone awry that transformed and abstracted borrowed folkloric motives into stylized movements that liberated the ballet vocabulary (Hodson 1996). The Rite was a Modernist archetype in provoking and embodying the crystallization of a new category in opposition to traditional ballet.

The choreography reflected diverse influences, from ancient rituals and Greek statues to geometrical Cubist paintings that weakened the “stickiness” of the dominant categorical codes, facilitating their recoding. This practice, documented in the context of an artistic production, offers an alternative to the established dichotomy between code conformity and code violation (Rao et al. 2005, Durand et al. 2007), directing attention to a substantively distinct interface between individual action and categorical emergence – one where individual action triggers reconfiguration, but does not determine its outcome.

These arguments were illustrated with the use of a case, but their validity has to be verified in a more systematic manner. There is evidence that the conceptual model applies to other historical cases, such as the categorical bifurcation of opera in the 18th century, when "Opera Buffa" emerged as a separate genre from the traditional format of “Opera Seria”. “Opera Seria” featured Gods and ancient heroes in mythical settings, had three acts and used high voices for principal characters, while “Opera Buffa” featured predominantly comic scenes and characters in a contemporary setting, having two acts and using lower voices (Grout 1965, Hunter 1999). The early Opera Buffa was a parallel development to Opera Seria and arose in reaction to it, developing as a genre understandable to common people by modifying some of the core principles of Opera Seria - avoiding high language, emphasizing dialogue and popular characters (Smith 1970). Opera Buffa emerged from within Opera Seria, as short, one-act interludes, performed in between acts of Opera Seria, which gave way to the full-fledged Opera Buffa later in the 18th century, reaching the summit of creativity and popularity with Mozart’s comic operas (Hunter 1999). The generalizability of this pattern can be established by studies in other contexts and historical periods, investigating the underlying social mechanisms and the conditions under which the highlighted practice of recoding proves consequential, leading to categorical renewal or to bifurcation.

The advantage of the case method is the ability to examine mechanisms in detail (Siggelkow 2007), documenting with greater precision than sample-based methods would permit, how the codes of classical ballet were reconfigured in practice. This paper calls for renewed attention to the earliest stage of emergence, marked by instability of categorical boundaries, which precedes the formation of audience consensus (Negro et al., 2010). Archetypes appear at this stage, giving shape to underlying processes that are otherwise difficult to observe. Archetypes can be a valuable source of information on the extent to which categorical emergence is driven by strategic action and categorical work. In this regard, a particularly interesting research topic are failed archetypes. Consider as an example “abstract

art". It was poised to rival the established "modern art" category in the early 20th century, but never developed as a coherent category, as artists employing abstract techniques preferred not be classified as "abstract", wary of identification with a technique rather than a style or ideas (Roque 2003). Taking the endogeneity issue seriously means acknowledging that the reasons for the emergence of categories may have something to do with the decline or the failure of a related category to emerge. It also means giving greater analytical weight to pre-existing categorical divides in analyzing patterns of emergence, to structural factors that shape the opportunities for and costs of creation of new categories, such as the degree of stability within a classification hierarchy. There is evidence that conditions of fragmentation and structural disequilibrium are conducive to the multiplication of categories as well as to their short duration (e.g. Sgourev 2013).

The analysis established parallels with complex processes observed in other disciplines, such as nuclear fission in physics or bifurcation in system dynamics. As Prigogine and Stengers (1997) note the analogy of bifurcation with social phenomena and with historical events is inescapable. In thinking about the range of possible trajectories of category emergence, it is useful to consider the evolutionary process as involving a succession of bifurcations, a path-dependent series of bifurcating entities, where chance and necessity, origination and path dependence co-exist (Padgett and McLean 2006). When systems far from equilibrium reach a bifurcation point, deterministic description breaks down, giving rise to possibilities for branching and multiplication that did not exist before (Prigogine 1996). At the bifurcation point, dissipative structures play the crucial link from the old to the new and unpredictable. Perhaps more than any other cultural product, the Rite embodies the transition between distinct states of Western-European culture, marking the precise point where underlying tensions erupted, releasing a tremendous volume of energy and congealing into a blueprint for Modernist experimentation.

This analysis of the Rite of Spring is consistent with accounts emphasizing the highly non-linear nature of the rise of Modernism, as a sequence of cultural punctuation points (e.g. Rabate 2007). The Rite marked the decisive moment in the process of bifurcation when a critical part of the audience interpreted "bad" ballet as "new" ballet. This had as a consequence the acceleration of that process, with the energy that it released triggering more events, encouraging experimentation and making the categorical split irreversible. As those that denounced it vociferously at its premiere rightfully feared.

References

- Axelrod, R., & Cohen, M. D. 2000. *Harnessing complexity: Organizational implications of a scientific frontier*. Basic Books.
- Andriani, P. 2011 *Complexity and Innovation* In P. Allen, S. Maguire & B. McKelvey (Ed) *The SAGE Handbook of Complexity and Management* (pp. 454-471), New York NY, SAGE Publications.
- Arthur, B. 2009 *The Nature of Technology: What It Is and How It Evolves*. New York, NY: Free Press.
- Arnold, V. I., 1972, "Lectures on bifurcation in versal families, " *Russ. Math. Surveys* 27, 54.
- Atkinson, Paul and Michelle Duffy. 2014 "Unnatural Movements: Modernism's Shaping of Intimate Relations in Stravinsky's *Le sacre du printemps*." *Affirmations of the Modern*. 2
- Bernstein, B. 1971. *Class, codes and control: Vol. 1, Theoretical studies toward a sociology of education*. London: Paladin.
- Blanchard, P.; Devaney, R. L.; Hall, G. R. 2006. *Differential Equations*. London: Thompson. pp. 96–111.
- Boland, R., Lyytinen K., & Yoo Y. 2007 *Wakes of Innovation in Project Networks: The Case of Digital 3-D Representations in Architecture, Engineering, and Construction Organization Science* 18, 4, 631–647.
- Brandstetter Gabriele 2014 *Le Sacre du printemps 1913/2013*“, *Sacré 101 – An Anthology on “The Rite of Spring”* Ed. By Raphael Gygax, pp. 9-22, JRP|Ringier Zurich
- Cariani G. 1999 *La découverte de l'art russe en France, 1879-1914* *Revue des études slaves*, 71, 2, 391-405.
- Chia, R. 2011 *Complex Thinking: Towards an Oblique Strategy for Dealing with the Complex Methodological Implications and Tools* In P. Allen, S. Maguire & B. McKelvey (Ed) *The SAGE Handbook of Complexity and Management* (pp. 182-198), New York, NY: SAGE Publications.
- Chua, Daniel 2007 *Rioting with Stravinsky: A Particular Analysis of the RITE OF SPRING Music Analysis* , 26, pp. 59-109.
- Centola, D, Willer R, & Macy M. 2005 "The Emperor's Dilemma: A Computational Model of Self-Enforcing Norms *American Journal of Sociology* 110, 4, 1009–40.
- Collins, Randall 2008 "*Violence - A Micro-sociological Theory*", Princeton University Press,

- Princeton NJ.
- Cottingham, D. 1998 *Cubism in the Shadow of War. The Avant-Garde and Politics in Paris 1905-1914* New Haven, CT: Yale University Press.
- Cross J. 2013 : Rewriting "The Rite: Creative Responses to "Le Sacre du printemps" in *Avatar of Modernity The Rite of Spring – Reconsidered*, Ed by Hermann Danuser and Heidi Zimmermann, pp. 198-220, Boosey & Hawkes, London
- Danuser H and L. Zimmermann 2013 *Multifarious Rites of Passage*, in *Avatar of Modernity The Rite of Spring – Reconsidered*, Ed by Hermann Danuser and Heidi Zimmermann, pp. 9-24, Boosey & Hawkes, London
- Durand, R., Rao, H. and Monin, P. (2007). 'Code and conduct in French cuisine: impact of code changes on external evaluations'. *Strategic Management Journal*, **28**, 455–72.
- Durand, R. and Paoletta, L. 2013 'Category stretching: reorienting research on categories in strategy, entrepreneurship, and organization theory'. *Journal of Management Studies*, **50**, 1100–23.
- Garafola, L. 1989. *Diaghilev's Ballets Russes*, New York, NY: Da Capo Press.
- Garafola L. 2013 : *Diaghilev's Ballets Russes: A New Kind of Company in Avatar of Modernity The Rite of Spring – Reconsidered*, Ed by Hermann Danuser and Heidi Zimmermann, pp. 25-41, Boosey & Hawkes, London
- Glynn, Mary Ann et Navis, Chad. 2013 *Categories, identities, and cultural classification: Moving beyond a model of categorical constraint*. *Journal of Management Studies*, vol. 50, no 6, p. 1124-1137.
- Grout, Donald, 1965 *A Short History of Opera*. New York, Columbia University Press
- Grigoriev S 1953 *The Diaghilev Ballet 1909-1929* London UK: Constable.
- Hannan, Michael T., Laszlo Polos, and Glenn R. Carroll. 2007. *Social Codes and Ecologies*. Princeton, NJ: Princeton University Press.
- Hargadon, A & Douglas, Y. 2001 "When Innovations Meet Institutions: Edison and the Design of the Electric Light" *Administrative Science Quarterly*, 46, 3, 476-501.
- Haveman, H. and Rao, H. 1997. "Structuring a Theory of Moral Sentiments: Institutional and Organizational Coevolution in the Early Thrift Industry." *American Journal of Sociology* 102, 1606-1651
- Hodson, Millicent 1986. *Nijinsky's Choreographic Method: Visual Sources from Roerich for "Le*

- Sacre du printemps". *Dance Research Journal*, 18(2), 7-15.
- Hodson, Millicent 1996. *Nijinsky's Crime Against Grace: reconstruction score of the original choreography for Le Sacre du Printemps* (No. 8). Pendragon Press.
- Hodson Millicent and Kenneth Archer 2013 *Landmarks in the Life of the Reconstructed Sacre*. Seven Days from Several Months at the Mariinsky AVANT. *The Journal of the Philosophical-Interdisciplinary Vanguard*, Vol. 4 No. 3 pp. 19-44
- Hogg, M. A. and Terry, D. J. 2000. 'Social identity and self-categorization processes in organizational contexts'. *Academy of Management Review*, **25**, 121–40.
- Horowitz, N. 2014. *Art of the deal: Contemporary art in a global financial market*. Princeton University Press.
- Hsu, G., and Hannan, M. T. 2005. Identities, genres, and organizational forms. *Organization Science*, 16(5), 474-490.
- Hunter, Mary 1999, *The Culture of opera buffa in Mozart's Vienna: A Poetics of Entertainment*. Princeton University Press, Princeton NJ 1999
- Jacobsson and Löfmarck: 2008 *A Sociology of Scandal and Moral Transgression Acta Sociologica*, Vol. 51, No. 3, pp. 203-216.
- Järvinen Hanna 2013 "They Never Dance": The Choreography of Le Sacre du Printemps, 1913 AVANT. *The Journal of the Philosophical-Interdisciplinary Vanguard*, Vol. 4 No. 3, pp. 69-110
- Jeschke C.2013 : "... retrouver la source de variété..." in *Avatar of Modernity The Rite of Spring – Reconsidered*, Ed by Hermann Danuser and Heidi Zimmermann, pp.130-154, Boosey & Hawkes, London
- Jones, Susan 2013 *Literature, Modernism and Dance*. Oxford University Press.
- Jordan S.2013 : *Le Sacre du printemps in Avatar of Modernity The Rite of Spring – Reconsidered*, Ed by Hermann Danuser and Heidi Zimmermann, pp. 221-239, Boosey & Hawkes, London
- Kennedy, M. T. 2008. 'Getting counted: markets, media, and reality'. *American Sociological Review*, **73**, 270–95.
- Kennedy, M. T., Lo, J. and Lounsbury, M. 2010. 'Category currency: a framework for analyzing the effects of meaning construction process'. *Research in the Sociology of Organizations*, **31**, 369–97.
- Khaire, M. and Wadhvani, R. D. 2010. 'Changing landscapes: the construction of meaning and

- value in a new market category – modern Indian art’. *Academy of Management Journal*, **53**, 1281–304.
- Lepecki, A. 2006. *Exhausting Dance: Performance and the Politics of Movement*. London and New York: Routledge.
- Munro, T. 1951 "The Afternoon of a Faun" and the Interrelation of the Arts *The Journal of Aesthetics and Art Criticism*, 10, 2, 95-111.
- Navis, C. and Glynn, M. A. 2010. ‘How new market categories emerge: temporal dynamics of legitimacy, identity, and entrepreneurship in satellite radio, 1990–2005’. *Administrative Science Quarterly*, **55**, 439–71.
- Nee, Victor 1996. The emergence of a market society: Changing mechanisms of stratification in China. *American Journal of Sociology*, 908-949.
- Negro, G., Koçak, Ö. and Hsu, G. (2010). ‘Research on categories in the sociology of organizations’. *Research in the Sociology of Organizations*, **31**, 3–35.
- Padgett, J. & Ansell, C. 1993, “Robust Action and the Rise of the Medici, 1400-1434” *American Journal of Sociology*, 98, 6, 1259-1319.
- Padgett, J & McLean, P. 2006 “Organizational Invention and Elite Transformation: The Birth of Partnership Systems in Renaissance Florence” *The American Journal of Sociology*, 111, 5, 1463-1568
- Padgett, J & Powell, W. 2012 *The Emergence of Organizations and Markets*, Princeton: Princeton University Press.
- Poincaré Henri, L'Équilibre d'une masse fluide animée d'un mouvement de rotation, *Acta Mathematica*, t.7, pp. 259-380, sept 1885.
- Prigogine, Ilya. 1996 "The End of Certainty: Time Chaos and the New Laws of Physics." The Free Press, New York.
- Prigogine, Ilya, and Isabelle Stengers. 1997 *The end of certainty*. Simon and Schuster, New York.
- Pritchard, J. 2011 *Les Ballets Russes de Diaghilev – quand l'art danse avec la musique*, Paris, France: Monelle Hayot.
- Rabaté, J. M. 2007. *The Cradle of Modernism*. Oxford: Blackwell
- Rao, H., Monin, P. and Durand, R. (2005). ‘Border crossing: bricolage and the erosion of categorical boundaries in French gastronomy’. *American Sociological Review*, **70**, 968–91.
- Reynolds and McCormick 2003, *No Fixed Points*, 37.

- Rivière Jacques, "Le sacre du printemps," in *What is Dance?: Readings in Theory and Criticism*, ed. Roger Copeland and Marshall Cohen (Oxford: Oxford University Press, 1983), 115-22 (115).
- Roque, G. 2003 *Qu'est-ce que l'art abstrait: une histoire de l'abstraction en peinture, 1860-1960*. Gallimard. Paris.
- Rosch, E. 1978. 'Principles of categorization'. In Rosch, E. and Lloyd, B. B. (Eds), *Cognition and Categorization*. Hillsdale, NJ: Lawrence Erlbaum, 189–206.
- Rosch, E. and Lloyd, B. B. 1978. *Cognition and Categorization*. Hillsdale, NJ: Erlbaum.
- Savenko S. 2013: *Vesna svyashchennaya in Its Homeland in Avatar of Modernity The Rite of Spring – Reconsidered*, Ed by Hermann Danuser and Heidy Zimmermann, pp. 240-262, Boosey & Hawkes, London
- Sgourev Stoyan V. 2013 "How Paris Gave Rise to Cubism (and Picasso): Ambiguity and Fragmentation in Radical Innovation" *Organization Science*, 24, 6, 1601-1617.
- Sgourev, S. V., & Althuizen, N. 2014. "Notable" or "Not Able" When Are Acts of Inconsistency Rewarded?. *American Sociological Review*, 79(2), 282-302.
- Sgourev, Stoyan V. 2015 "Brokerage as Catalysis: How Diaghilev's Ballets Russes Escalated Modernism." *Organization Studies*, Vol. 36, No 3, p. 343-361
- Siggelkow, N 2007 *Persuasion With Case Studies* *Academy of Management Journal* 50, 1, 20-24.
- Smith Patrick J 1970 *The Tenth Muse* Schirmer.
- Stark, David 1996. *Recombinant property in East European capitalism*. *American journal of sociology*, 993-1027.
- Taruskin Richard 2013 *Resisting The Rite AVANT*. *The Journal of the Philosophical-Interdisciplinary Vanguard*, Vol. 4 No. 3pp. 269-308
- Vergne, J. P., & Wry, T. 2014. *Categorizing categorization research: Review, integration, and future directions*. *Journal of Management Studies*, 51(1), 56-94.
- Zilberstein. I 1982 *Sergei Diaghilev and Russian Art: Articles, Letters, Interviews, Moscow, Soviet Union: Izzobrazitelnoe Isskustvo*.
- Zuckerman, Ezra. 1999. "The Categorical Imperative: Securities Analysts and the Illegitimacy Discount." *American Journal of Sociology* 104:1398-1439.
- Zuckerman, Ezra, Tai-Young Kim, Kalinda Ukanwa, and James von Rittmann. 2003. "Robust Identities or Nonentities?" *American Journal of Sociology* 108:1018-74.
- Weir, Lucy 2013 *Primitive Rituals, Contemporary Aftershocks: Evocations of the Orientalist 'Other' in four productions of Le Sacre du printemps AVANT*. *The Journal of the Philosophical-Interdisciplinary Vanguard*, Vol. 4 No. 3, pp. 111-146

Figure 1 Conceptual Model of Categorical Bifurcation (in Ballet)

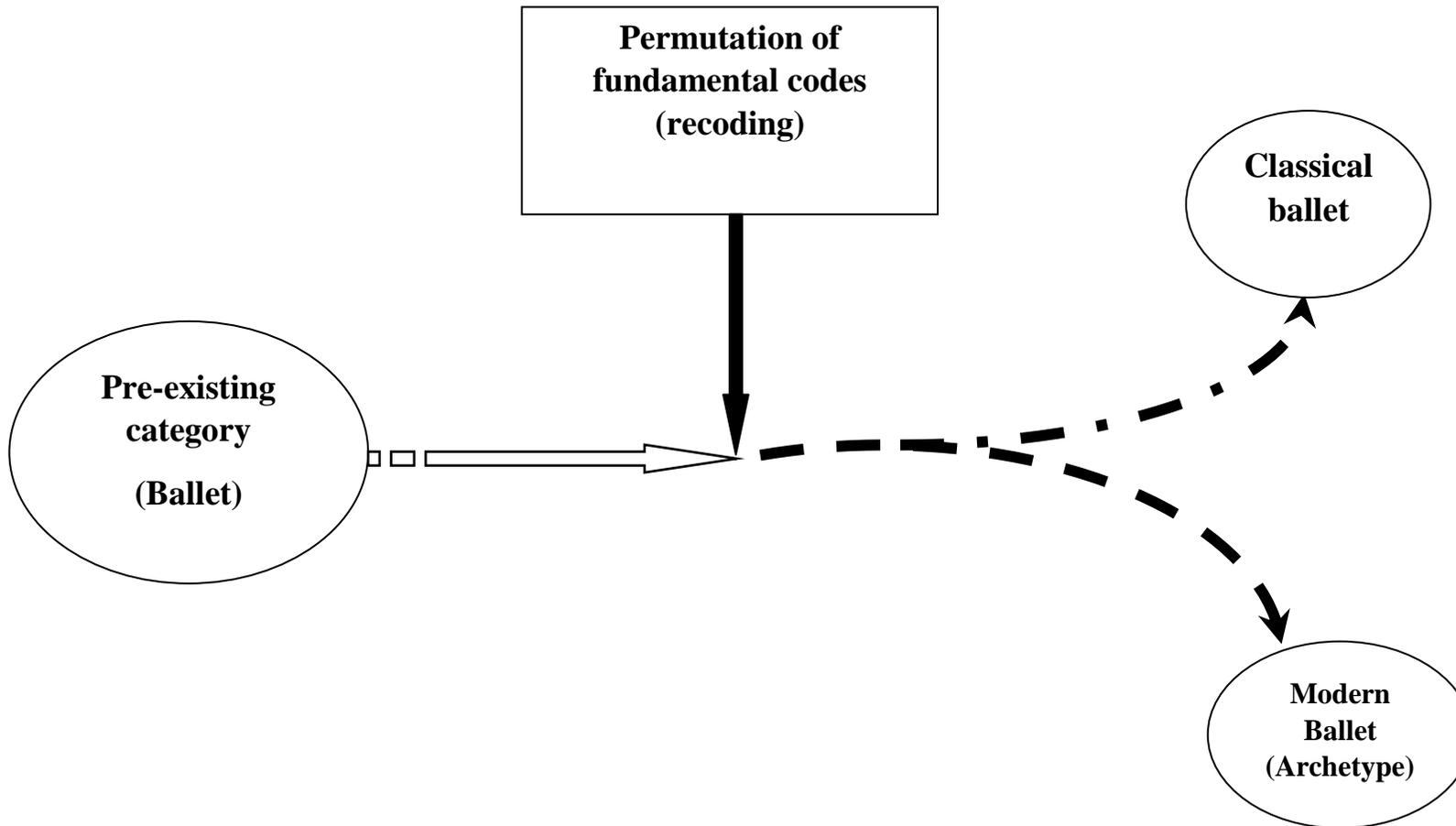


Table 1 Summary of differences between the categorical codes of “classical” and “modern” ballet (as manifested in The Rite of Spring)

Classical	Modern
<p>Main principles: grace, beauty, elegance, harmony, lightness and flow.</p>	<p>Main principles: simplicity, asymmetry, abruptness, repetition, stillness, strain and tension.</p>
<p>Movement: learned and cultivated, controlled gracefulness. Positions classified by gender.</p>	<p>Movement: natural and realistic, simple gestures, basic steps, concise and angular movements. Positions not classified by gender.</p>
<p>Flow: Uninterrupted and smooth, proportion and symmetry. Couples feature prominently.</p>	<p>Flow: Interrupted, breaks of line and prolonged standing. Asymmetric configurations of triangles, arcs and lines, groups of dancers moving together or against one another. Couples feature sporadically.</p>
<p>Technique: pirouettes, jetés, arabesques, tiny footwork, jumps cutting through space, fully rounded arms, immateriality and volatility.</p>	<p>Technique: no pirouettes, jetés or arabesques, but plain walking, running, jumping and occasional stomping and falling. Toes turned in, elbows glued to the ribs.</p>
<p>Excellence: technical prowess and virtuosic movements executed with precision and apparent ease. Silent and effortless dancing.</p>	<p>Excellence: downplaying virtuosity, demonstrating visible effort, accurate execution of “awkward” positions</p>
<p>Hierarchy: one or two main characters dancing center-stage, with the corps de ballet moving or standing still in the background.</p>	<p>Hierarchy: democratic, no stars, everyone dancing from the beginning to the end, individualized roles with different sequences for different dancers</p>
<p>Disposition Optimistic, asserting life</p>	<p>Disposition Pessimistic, asserting sacrifice.</p>
<p>Audience: Primary role, expects precise and established dance sequences.</p>	<p>Audience: Secondary role, completes the meaning of dance sequences.</p>

Figure 2 Frequency of appearance in French books of the words “ballet classique” and “ballet moderne” in the period 1900-2000

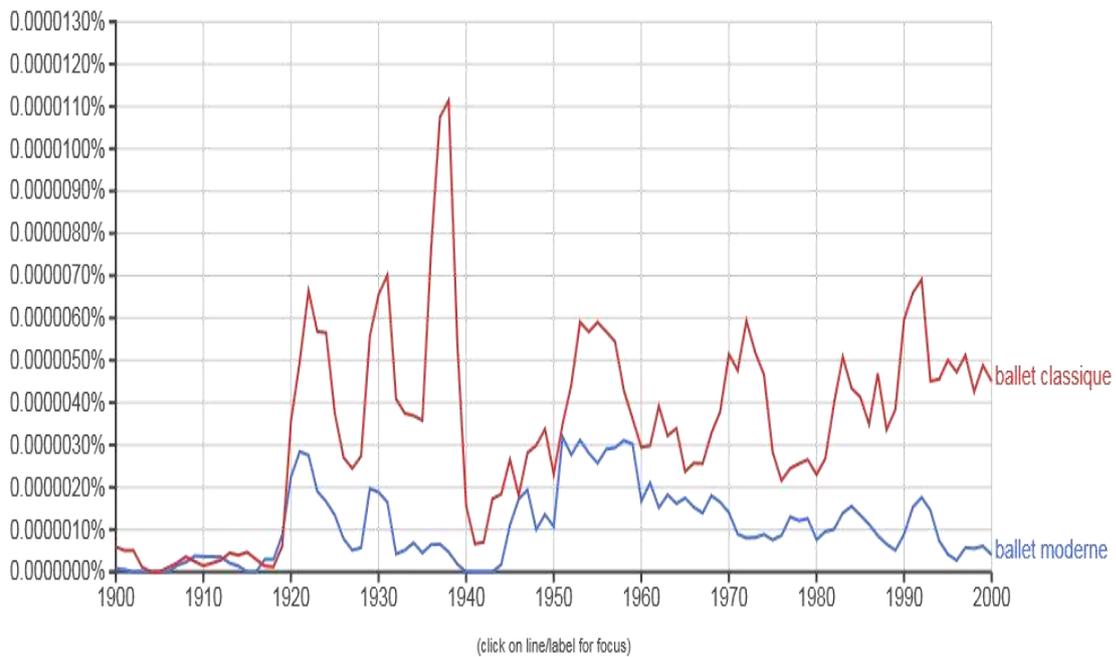
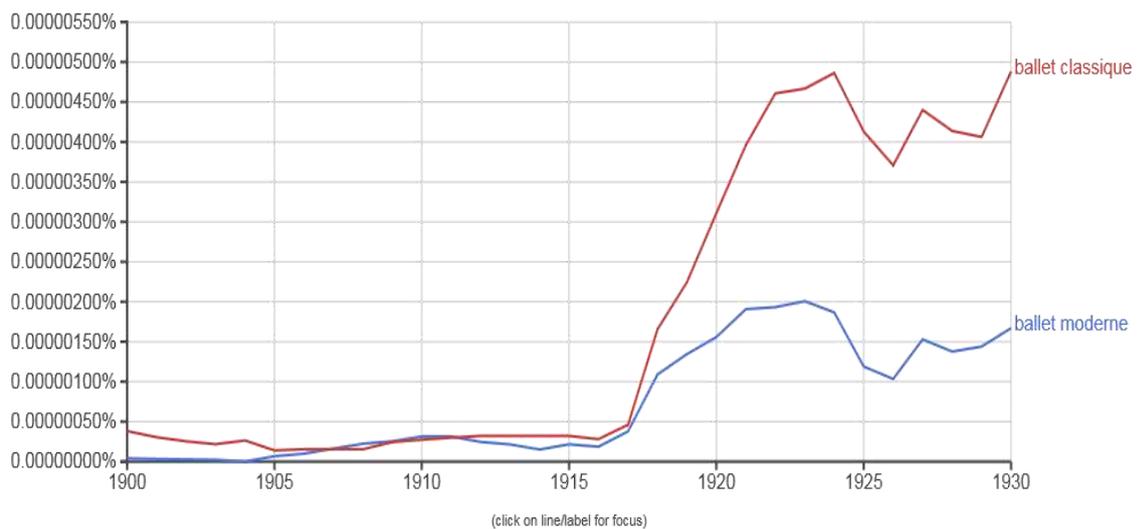


Figure 3 Figure 2 Frequency of appearance in French books of the words “ballet classique” and “ballet moderne” in the period 1900-1930



Source: Google Ngram