Understanding the Dynamics of Cultural Stratification

The Case of Spain

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TESI DOCTORAL UPF / 2021

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Acknowledgments

First and foremost, I am indebted to my supervisor, Dr. Jorge Rodríguez-Menés for his continuous support, guidance, and patience throughout the process of this dissertation. Jorge, it has been an honor to learn from you.

Most importantly, I cherish the moral support my mother and father, Ayşe and Hüseyin Ağlamaz, gave me with all their love. My immeasurable appreciation and sincere thanks also go to my beloved brother Murat Ağlamaz, who is always by my side at the times I need him most. None of this would be possible without you.

My joy knows no bounds in expressing my most heartfelt gratitude to my best friend Tuğba Işık, whose encouragement made it possible for me to manage these stressful years. Without your encouragement and letters, I would not have enjoyed this journey so much.

Thanks also to the Department of Political and Social Sciences at UPF for all the administrative assistance over the years.

At last but not least, I humbly extend my thanks to all of the friends whom I have met along this journey.

Abstract

Advanced societies have witnessed unprecedented socioeconomic and technological changes in the last 50 years. The growth of the service sector has transformed the class structure, and social mobility has increased for younger cohorts. Massive urbanization has altered social interactions; educational expansion has raised people's cognitive abilities, and the spread of the mass media and new information technologies has facilitated contacts between different cultures. These social transformations have been accompanied by deep cultural changes at the individual and societal levels. This thesis explores the many different manifestations of cultural change and investigates the underlying mechanisms through which social change has promoted differentiation in cultural consumption and the multiplication of social connections. Using data from Spain, a society that experienced one of the fastest modernization processes in the second half of the 20th century, I examine three dimensions of culture that are central to the literature on the sociology of culture: cultural tastes, omnivority, and social capital. The findings of this thesis highlight the persistent importance of structural factors such as education and social class in explaining the differences in cultural manifestations. However, the results also suggest that cultural preferences may be becoming more socially heterogeneous and individualistic over time due to the levelling role of public education, urbanization, social mobility, and the spread of new communication technologies. The thesis's main conclusion is that to study the relationship between social and cultural change it may be necessary to adopt a pluralist perspective that considers the role of both social structure and individuals' actions in shaping culture.

Resumen

Las sociedades avanzadas han presenciado cambios socioeconómicos y tecnológicos sin precedentes en los últimos 50 años. El crecimiento del sector de servicios ha transformado la estructura de clases y la movilidad social ha aumentado para las cohortes más jóvenes. La urbanización masiva ha alterado las interacciones sociales; la expansión educativa ha aumentado las capacidades cognitivas de las personas; y la difusión de los medios de comunicación y las nuevas tecnologías de la información han facilitado los contactos entre diferentes culturas. Estas transformaciones sociales han ido acompañadas de profundos cambios culturales a nivel individual y social. Esta tesis explora las diferentes manifestaciones del cambio cultural e investiga los mecanismos subyacentes a través de los cuales el cambio social ha promovido la diferenciación en el consumo cultural y la multiplicación de contactos sociales. Utilizando datos de España, una sociedad que experimentó uno de los procesos de modernización más rápidos en la segunda mitad del siglo XX, examino tres dimensiones de la cultura que son centrales para la literatura sobre la sociología de la cultura: los gustos culturales, la omnivoridad cultural y el capital social. Los resultados de la tesis resaltan la importancia continuada de los factores estructurales como la educación y la clase social para explicar las diferencias en las manifestaciones culturales. Sin embargo, los resultados también sugieren que las preferencias culturales pueden volverse más socialmente heterogéneas e individualistas con el tiempo debido al papel democratizador de la educación pública, la urbanización, la movilidad social y la difusión de las nuevas tecnologías de la comunicación. La principal conclusión de la tesis es que para estudiar la relación entre cambio social y cultural puede ser oportuno adoptar una perspectiva pluralista que considere el papel tanto de la estructura social como de las acciones de los individuos en la configuración de las manifestaciones culturales.

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1 INTRODUCTION

Cultural consumption is a key determiner of an individual's leisure time preferences. In 2019, Spaniards spent a daily average of 5 hours 41 minutes watching TV, 2 hours 85 minutes listening to music, 5 hours 18 minutes using the internet, and 1 hour and 39 minutes surfing on social media (Arena Media and The Cocktail Analysis, 2019). That same year, 92% of the adult Spanish population watched T.V., 85% listened to music, 91% used the internet and mobile phones, 87% used WhatsApp, and 88% used Facebook. Total household spending on cultural activities in 2019 was valued at 12.7 billion euros, accounting for 2.3% of Spaniards' total estimated spending, with the culture industry accounting for 3.2% of Spanish GDP (INE, 2019). These numbers show that cultural activities and digital social connections are some of the primary elements driving the monetary spending and time use of the average Spanish adult.

Even though Spain's rapid socio-economic transition gives it a unique standing in Europe, as its modernization was delayed during the dictatorship of Francisco Franco, the numbers do not change significantly when comparing across much of the rest of Europe and other developed countries (Arena Media and The Cocktail Analysis, 2019). Hence, it is not surprising that many researchers have sought to identify the driving forces behind specific patterns of cultural activities and how these forces relate to the construction of online and offline social connections from which culture stems. While it is conventionally believed that social structures have a strong influence on culture and social relations, less is known about the extent to which social change have linked to the differences in cultural preferences and patterns of social interaction.

This dissertation focuses on how social change in Spain has linked to social relations and cultural preferences. More specifically, it analyzes the moderating and mediating role of social structure between these two elements. I will also explore the extent to which changes in cultural practices and social relations are the product of changes in the social structure (e.g., how changes in social class

composition affect cultural consumption), or of cross-generational secular trends converging into new forms of cultural and social expression that similarly affect all relevant groups in the social structure.

1.1 What we know about culture

There are two definitions of culture in sociology. The first definition of culture refers to the study of cultural texts or genres (classical music, horror movies, etc.) or meaning-making cultural practices (going to the theatre, playing golf, etc.) (Williams, 1963). The second definition views culture as a particular way of life and social relations in which certain values, norms, and beliefs are shared among communities. Even though these definitions are interrelated in many aspects, the first definition of culture is more useful for analyzing individuals' aesthetic expressions or cultural preferences, while the second definition can be more helpful for examining social relations and communities. In both definitions, culture is considered as a potential source of social cohesion (Gans, 1974; Bourdieu, 1984; Markus & Kitayama, 1991; William, 2006). In what follows, I briefly present the most important concepts that I will use throughout the dissertation.

1.1.1 Genre, cultural taste, and cultural omnivority

In the sociology of culture, preferences are mostly organized into genres and tastes. A genre signifies distinct "*types of art*" or "*texts*" (such as pop and rock or classical music), and it results from aggregating cultural expressions according to their similarities in the textual aesthetic and mostly produced or named by professionals (Lena & Peterson, 2008).

Genres can also be clustered into broader categories called cultural tastes, according to similarities in their production processes (mass or customized), audience engagements (fans, clubs, etc.), or social milieus (Bourdieu, 1984; Gans, 2012). In the sociology literature, the classification of genres into cultural tastes has come out mainly through a process of ranking or polarization. In such a polarization,

genres located at the top are labeled highbrow or legitimate taste, while the genres positioned at the bottom are labeled lowbrow or popular taste. In other words, highbrow and lowbrow tastes result from the social valuation of preferences for cultural genres. For instance, socially valued cultural genres such as listening to classical music or going to the opera, are seeing as having nurturing, contemplational, perfectionistic, intellectual, educational, canonical, and cognitive connotations, which are also considered hallmarks of upper-class culture. On the other hand, the genres such as listening to pop music and watching soap operas, are seen as being linked to enjoyment, relaxation, obedience, vulgarity, and commercialism, which are mostly linked to the culture of a lower class (Peterson, 1997). To sum, cultural tastes are individuals' predispositions towards certain cultural genres depending on the social meanings attached to them.

Another academic concept used in this dissertation is cultural omnivority, which was developed by Peterson and Kern (1996) to define either one's genre preference composition (i.e., the extent to which a person blends highbrow and lowbrow tastes) or one's cultural appetite level for all genres and cultural activities (i.e., a volume of appreciation/aversion).

1.1.2 Community, social relations, and social capital

The standard definition of community is a group of people living together in a determined geographical location who share similar cultural habits, interpersonal interactions, and common values (Putnam, 1995). Ever since Ferdinand Tönnies (1957) highlighted the importance of community as an essential condition for the development of close social relations, particularly for Gemeinschaft or traditional types of communities, community has been used to refer to bringing a sense of belonging, social acceptance, and support.

Today, many of the face-to-face communications that supported social relations in traditional communities have been radically changed, or complemented with, connections with others through the internet. These virtual connections can provide one with a sense of social approval and the feeling of belonging to a larger community.

This might occur, for example, when an individual receives messages or calls from friends and family or receives a like or comment on a shared post on a social network site such as Facebook (Williams, 2006). Walther et al. (2008) argue that the feedback loop embedded in personal digital media helps users maintain a high level of communication with others in the absence of a shared physical space, as well as develop meaningful social relations within online communities much in the same way as face-to-face interpersonal connections helped support social relations in traditional communities (Rheingold, 1993; Lin, 2008).

Much research on social capital has been aimed at understanding how people form, and benefit from, their social relations within different types of communities (Bourdieu, 1986; Burt, 2001; Putnam, 2002). However, the definition of social capital has been one of the most controversial topics in the sociology literature. In this dissertation, I opt for Lin's (2008) definition and measurement of social capital, one of the best-known conceptualizations in the literature. His approach incorporates notions of network location and embedded resources to a greater extent than other approaches. A major advantage of Lin's conceptualization, which integrates methodologies from the social capital literature, is his identification of the density, diversity, and instrumentality of social ties. These are applicable to both face-to-face and online social connections (Lin & Erickson, 2008). I adapted Lin's notions of accessibility and mobilization to my social capital approach via the concepts of, respectively, embedded resources and network locations in both online and offline worlds. This will allow me to explore the extent to which the transformation in the forms of social communications brought about by the internet has fundamentally altered the formation of social relations that shape cultural understandings.

1.2 Social change

The past few decades have witnessed a fundamental social change. Economic growth accompanied by regulations to organize work-leisure time balance has been enormously influential in shaping cultural preferences and social relations (Gershuny, 2000; Greenfield et al., 2003). It has been shown, furthermore, that the economic

growth of a country gives rise to higher cultural and leisure time expenditures (Inglehart, 1997). The average number of daily working hours has declined from 12 hours in the 19th century to 7–8 hours in the 20th century (Gerhsuny, 2000).

The contextual nature of social structures has also been transformed along with these changes, most noticeably with shifts in the social class structure. People's subjective experiences of working conditions (autonomy and supervision degrees, promotion prospects, levels of responsibility on hiring, etc.) have changed, and we have witnessed increased social mobility and the birth of new middle classes, such as the emergent service workers consisting of relatively younger individuals with high education and low income (Fiske, 1991; Bennett et al., 2008). Meanwhile, wider access to higher education and massive urbanization have helped people develop relationships with otherwise inaccessible contacts, thus expanding the pool of symbolic resources that connect individuals to a variety of cultural forms (Collins, 1979; Bourdieu, 1984).

Some scholars have conceptualized such change as a transformation from *Gemeinschaft* (communities) to *Gesellschaft* (societies) (Tönnies, 1957; Inkeles, 1983). Communal values stem from tightly knit social relations, and collective values are typically present in small and segregated communities that give rise to distinct, but internally homogenous, cultural expressions (Inkeles, 1983; Inglehart & Welzel, 2005). In contrast, members of societies are interdependent in a more indirect way, and their cultural values and expressions are linked to a more extensive cultural system of beliefs that favors progressive and individualistic ideas (Markus & Kitayama, 1991; Inglehart, 1997). In a large cross-cultural study, Inglehart and Welzel (2005) showed that economic growth was correlated with individualistic ideas, self-expression, and cultural diversity, by expanding social relations beyond core communities. The rising individualism and more diversified social context accompanying these changes went hand in hand with the commercialization of culture, challenging the existence of single standard narratives in the art world, for instance. The culture industry has provided its audience with an increasing number of cultural

activities and socially valued cultural expressions became more accessible to more people (Johnston & Baumann, 2007; Gans, 2012).

Apart from changes in the culture industry and social structures, the 1990s were marked by another fundamental change. This change had to do with how people spent their leisure time and connected with one another, thanks to the widespread dissemination of personal digital devices. Social relations became entangled in ways never witnessed, pushing humanity into an era of greater social connectivity, which spanned across social and geographic boundaries. Using our electronic devices, we could communicate with our existing connections at anytime and anywhere, create new acquaintances based on similar interests, and easily access novel information more than ever before in human history (Hampton & Wellman, 2001; Papacharissi & Mendelson, 2011).

The aforementioned shifts in values, socio-economic environments, and the fluidity of individuals' preferences, along with advances in digital technology, marked the start of a new era. In this era, the meaning of leisure has been redefined, and the variety of cultural activities has been amplified, expanding possibilities for individuals to choose and to form their social groups around these choices (Tonnies, 1957; Inkeles, 1983; Markus & Kitayama, 1991; Featherstone, 1992).

However, many important questions remain unanswered. Notably, what exactly are the main changes in cultural preferences and social relations that can be observed? Do these changes relate to the content (e.g., lowbrow vs. highbrow tastes, or strong vs. weak social ties) or the pattern (e.g., univore vs. omnivore preferences or offline vs. online connections) of cultural preferences and social relations? How can we explain the differences in cultural preferences and social relations? Have some social groups such as birth cohorts and social classes liberated from structural constraints in their cultural preferences and practices, or are they as stratified as ever?

In this dissertation, I aim to provide answers to these questions by presenting two broad arguments on how the relationship between social and cultural change fits within the two main bodies of

literature. Academic discussions between these two schools of thought, the *individualistic* and the *structuralist views*, have often centered on whether agency or social structures play a relatively larger role in shaping cultural preferences and social relations. The *structuralist view* sees cultural change mainly as reflecting a compositional change in the characteristics of the population (due to processes of educational expansion, urbanization, or growth of the service sector), while the individualistic one considers cultural change as the outcome of a general change in people's attitudes and a blurring of the symbolic boundaries between social strata.

1.2.1 Agency and the individualistic view

The *individualistic view* focuses on the role of agency (the capacity of individuals to modify their social constraints) to explain the differences in cultural preferences and social relations. It argues that technical and economic transformations have influenced individuals' socialization and cultural appreciations in similar ways. These influences are most visible through generational population replacement, where each birth cohorts (cohorts) share common values shaped by different contexts of socialization at different ages (Smith & Clurman, 2009; Lizardo & Skiles, 2015; Christin et al., 2016). The argument claims that older people are less likely to be affected by social shifts towards individualism and mass-produced commercial culture. Meanwhile, younger people have grown up in a socially eclectic and culturally complex world, which has led them to place more importance on personal preferences. They have an opportunity to freed their social connections from the social structures that kept the older people are more socially stratified. Eventually, this view argues that the understanding of culture and the formation of social connections gradually shifting from social structure-based formation towards an increasing emphasis on diversification and equalization.

The *individualistic view* highlights the importance of micro-level interactions among individuals and presents a dynamic understanding of culture, where values, preferences, and relations are constantly changing depending on day-to-day activities (Hall, 1976; Simmel et al., 1997). Therefore, it assumes that the formation of

genres is becoming more differentiated and less hierarchical, thanks to new techniques for the mechanical reproduction of culture, which increase the range and availability of cultural products, and the changes in values applauding individualistic ideas. Consequently, it sees culture as autonomous from the social structure, which has its own dynamics.

This idea eventually presupposes that culture is not generated by social factors. Rather, it is an autonomous expression of social life that has been liberated from its materialistic meanings, which relate to social structures. For instance, according to this view, cultural and historical practices construct the genre and taste categories (e.g., jazz as a lowbrow taste in the past vs. jazz as a highbrow taste now), and individuals prefer certain genres not depending on their social identities and the social context in which they live (Fiske, 1991; Gans, 1999). Therefore, cultural genres and tastes take mildly solidified forms that are subject to social changes that favor new forms of social connections and cultural expressions similar across all social groups, and people enjoy a plurality in the meaning of genres, highlighting cultural diversity (Featherstone, 1992).

The theoretical background of this view links cultural change to the equalizing role of social change. Increasing access to culture and interpersonal interactions enable changes in the social context, giving rise to post-materialist values such as self-expression and freedom of choice and to increased opportunity structure of society (e.g., in opportunities for social mobility). According to this perspective, changes in opportunity structure of society is unrelated to the changes in the size of the socio-economic groups and social classes. However, it makes the connection between the social structure and cultural preferences less deterministic. In other words, change in cultural tastes and leisure activities is neither a source nor a consequence of changes in the social structure. Rather, the symbolic meanings of genres and cultural tastes, and the formation of cultural activities, have been redefined in dynamic, fuzzy, and spontaneous ways. Thus, social change has accompanied cultural change in a manner that encourages an individual's cultural preferences to become more fragmented, fluid, and incoherent (Storey, 2006).

The *individualistic view* also highlights the levelling role of the internet. It argues that the nature of digital online connections, such as the reducing the roles of personal and social identity cues, including those of gender, education, age, or social class, promote anonymity and self-selectiveness (like presenting one's ideal self) and help users feel like they are part of a global community (Jiang et al., 2011). Wellman and Haythornthwaite (2002) assert that in an online world, individuals can access wider cultural expressions and connect to other individuals beyond their social groups, as digital personal media brings together geographically distant people based on shared interests.

Therefore, as the distribution of social capital is more equalized in online communities than in offline ones, this view argues that people are more likely to have fewer access limitations, consequently allowing them to build social connections that are instrumental in channeling information and making job benefits accessible to everyone (Tyler, 2002). Thus, digital personal media is considered to be a way to equalize online resources by providing ease of information access and blurring social and geographical boundaries—thereby distributing available resources embedded in these online communities to a large number of people (Lin & Erickson, 2008).

1.2.2 Social structures

Veblen (1967) was one of the first to assert that cultural segregation (i.e., highbrow and lowbrow taste) is highly related to structural factors such as social class and education. Cultural preferences are encoded in structural identities, and, thus, they consciously or unconsciously follow a specific type of cultural taste that reflects social status, strengthens group cohesion, and helps reproduce social structures. The idea is that people from different socio-economic backgrounds have distinct intentions to participate in cultural activities.

Building on Veblen's perspective, Bourdieu (1984) claimed that the different symbolic representations attached to the lifestyle of a given social standing justify social polarization. The dual conceptualization

of genres and cultural tastes, which aims at explaining the role of socioeconomic factors in the different understandings of cultural appreciation, has been taken from the *structuralist view*.

Bourdieu's (1984) *individuals' cultural trajectories approach* and Gidden's (1986) s*tructuration theory* acknowledge that there is an interdependence between agency and structure (the limitations or advantages of a particular social position). However, even though the *structuralist view* sees cultural practices as socially structured and interrelated, it places more importance on social structures and sees agency more as an instrument for its realization. This view emphasizes transformations in the socio-economic structure as the main force in explaining the differences in patterns of cultural preferences and social relations. In other words, it builds on the role of changes in the demographic weight (and power) of some groups in society as the source of cultural and social change.

The theoretical position here is that socio-demographic changes, particularly those linked to class structure and the educational system, lead to an expansion of some groups at the expense of others. It predicts that cultural preferences and social relations evolve as a function of changes in social structures. The expansion of the new middle class, which is mostly occupied by educated younger people living in urban areas, has led to a new mode of cultural expression—the popular cultural taste—that results in an eclectic cultural taste (Peterson, 1992; Adorno & Horkheimer, 2002; Coulangeon & Donnat, 2016).

According to this view, online social connections have similarities to real-life ones in terms of social capital levels (Katz & Rice, 2002; Kim et al., 2007). Thus, it surmises that how online and offline connections are constructed mirror each other, meaning that the distinct social groups on online platforms partly explain the differences between online and offline social capital. Structural differences have marked the formation of online and offline social connections, emphasizing the extent to which online social networks reflect offline social inequalities.

1.3 Justification of research

In prior work, scholars have employed several approaches to address the variation in cultural tastes and social relations. The conventional sociological approach turns to structural factors, such as social class and education, to explain the differences in the way culture is shaped. A large body of research has focused on the impact of variations in the class and educational structures to explain changes in people's daily lives. Still, empirical results have often been ambiguous, and numerous interpretations on the relations between cultural and social change have remained speculative.

Another view, the *individualistic view*, links cultural preferences and social relations to agency, independently of their locations in the social structure. This view gives, in a sense, priority to culture over society. It considers changes in cultural preferences and social relations as resulting from the democratization of cultural values, which has dismantled traditional social barriers. While theoretically well-developed, this approach has been criticized due to a lack of empirical evidence supporting the theory.

Culture is not autonomous from social structure. Today's sociological understanding of social life acknowledges the existence of a dialog between the agency-structure visions of culture. It stresses the interplay between individual actors and social structures as against a contraposition in explaining the relationship between cultural practices and social relations (Bourdieu, 1984; Giddens; 1986). After all, societal, cultural, and social changes are all interdependent. Thus, the *individualist* and *structuralist arguments* have been converging into a social theory of cultural practices. In this thesis, the agency-structure relation is not presented as one of a strict opposition, but rather as a heuristic tool to investigate to what extent changes in cultural practices are better explained by changes in agency or in social structures. The aim is to reveal the workings of the mechanisms governing the changes observed in the expression of cultural attitudes in contemporary Spain, not to omit one in favor of the other.

Throughout this dissertation, I try to reach this aims by assessing how these approaches overlap and complement each other and if one is empirically more important than the other for explaining the dynamics of social and cultural change. To distinguish between the role of structural factors and the role of individual and contextual influences in shaping daily cultural and social activities, I focus on three important elements in the creation of culture. First, I look at trends in cultural tastes and the mediation role of social indicators on cultural preferences for lifestyles. Second, I investigate the well-known relationship between consumption activities and individuals' social position focusing on whether the relationship is a distinctive or an omnivorous one. Third, I focus on social capital and analyze the differences between the social relations that people maintain online and offline. Thus, I take a wider view of culture, one that covers various aspects of leisure time.

1.4 The structure and contributions of the dissertation

1.4.1 Spain as a case study

Spain's unique story in western Europe of compressed socio-economic change makes it an excellent case study. Its modernization process began later than most of its European neighbors because it was under the control of a dictator who kept the economy and society closed off until the 1960s. However, the country was subsequently able to modernize very rapidly thanks to technology and its geographical proximity to developed economies in Western Europe (Tusell, 2011).

In the 1960s, Spain experienced one of the fastest rates of socio-economic modernization on the continent, with rates of economic growth that were among the highest in the world; its economic success is referred to as the "*Spanish Economic Miracle*" (Harrison, 1978; Salmon, 1995; Carreras & Tafunell, 2003). This was followed by deep political and cultural changes in the 1970s, following the death in 1975 of Francisco Franco, the dictator who ruled over Spain for almost four decades (Carreras et al., 2005; Escosura, 2007), and

the subsequent transition to democracy in 1977. These changes were accelerated by Spain's entry into the European Union in 1986.

The ensuing decades have witnessed further substantial economic, social, and cultural changes (Escosura & Rosés, 2010; Fishman & Lizardo, 2013). The manifestations of such a rapid transformation in the socio-economic structure and cultural life of the country are evident. Spain's GDP grew on average 2.5% a year between 1960–93, one of the highest rates in Europe (Salmon, 2010). The country's GDP rates continued to increase until the global economic downturn in 2008, leading to massive urbanization and migratory flows from the countryside to the expanding urban centers (Escosura, 2017). Economic development brings about expanding educational opportunities, particularly at higher levels of education (Tusell, 2011).

As the economy grew, living standards rose, especially among the new middle class, and mass consumerism increased for the first time (Ross, 2000). After Spain opened up its economy in the last few years of the Franco regime, tourism flourished, emigration increased, and technology led the transformation of the economy from a rural agrarian society to an industrialized urban one (Tusell, 2011). Such changes allowed people to come into contact with a wide range of social experiences and cultural expressions (Payne, 1984).

Such structural changes have been accompanied by changes in cultural values favoring self-realization and individualization, as well as the expansion of the culture industry, giving rise to new cultural activities. With the opening up of the Spanish economy, interactions with the rest of the world have increased, and new cultural values featuring more secular and individualistic characteristics began to circulate after being oppressed for decades. More recently, like in other western nations, technological advances, such as the spread of personal digital devices, have transformed social relations and cultural preferences in profound ways (Chislett, 2008). Given all of these factors, Spain can provide insights into how rapid social changes in the place of a few decades are complemented by cultural change.

1.4.2 Social change and birth cohorts

This dissertation has two main aims. First, it aims to document the main trends in Spaniards' cultural preferences and social relations. Second, it seeks to identify the factors that best account for these trends. The key instrument that I use to study socio-cultural change is to track differences across birth cohorts. This variable plays an essential role in understanding time-varying elements in sociology as a part of the Age-Period-Cohort (APC) framework (O'Brien, 2000). APC analysis discerns three types of time-varying phenomena: (i) age effects; (ii) period effects, and (iii) cohort effects (Glenn, 2005; Keyes & Li, 2012; Luo & Hodges, 2020). Age effects or "*life cycle effects*" are variations linked to biological and social processes of aging. They are individual processes that occur as people become older and are unrelated to the period in which individuals grow up. Period effects result from external events equally experienced by all age groups during a particular period of time. Cohort effects are variations affecting a group of people who share some characteristics, as they move across time. The most common way of using cohorts in social science is 'birth cohorts' defined by the year of birth. Birth cohorts tend to share similar values, because they have experienced the same set of political, economic, and social macro events over their life courses at the same ages (Smith & Clurman, 2009; Reeves, 2014). The difficulty is to disentangle these period effects from the age effects.

Indeed, birth cohort is an exact linear function of age and period. To disentangle the three components, panel or multilevel data are needed (Winship & Harding, 2008). Since this thesis analyzes cross-sectional data, cohort effects are not strictly distinguishable from age and period effects. However, throughout this thesis I will generally argue that differences across birth cohorts better capture period effects unequally affecting people born in different decades than age effects. There are two reasons for this interpretation.

The first reason is that there is much evidence pointing towards the overall stability of cultural tastes or general cultural predispositions over the life course. This is not to deny that the formation of aesthetic dispositions is a never-ending process along individuals lives. Adults

can experience age-related trajectories due to family constraints or poor health conditions, which might induce a degree of variation in the development of their tastes (Harrison & Ryan, 2010). However, it has been repeatedly established that the years of childhood, adolescence, and the early stages of adulthood are crucial periods in the development of cultural appreciations (Bourdieu, 1984; Holbrook & Schindler, 1989; North & Hargreaves, 2002; Kraaykamp & Van Eicjk, 2010; Nagel & Lemel, 2019). Many studies show that cultural tastes are fairly stable over the life-course (Dumais, 2002; Lizardo, 2006; Sullivan & Katz-Gerro, 2007; Bell & Jones, 2013; Reeves, 2014, 2016; Friedman & Reeves, 2020).

Second, throughout this thesis I will repeatedly show how variations in individuals' structural positions (e.g., in educational and occupational attainments) are associated with cultural and social practices and tastes, but also with birth cohorts. Now, we know from previous research that such structural positions are acquired at an early age or during youth and remain quite stable over the life course (Clausen, 1991; Warren, Sheridan, & Hauser, 2002; Heckman & Krueger, 2003; Bukody & Robert, 2007; Daenekindt & Roose, 2013; Chetty et al., 2014; Nagel & Lemel, 2019). Hence, it is reasonable to interpret the part of the association between birth cohort and cultural taste that is explained by social stratification as capturing changes in tastes associated with structural changes across periods affecting birth cohorts differently (e.g., by increasing the general levels of education of the younger cohorts), not across ages within the same individuals.

Birth cohort analysis is applied in the three empirical chapters of the dissertation to examine different, but complementary, dimensions of culture and social relations, using similar data (cross-national surveys of the Spanish population), methods of analysis (multivariate and regression analysis), and additional independent variables (class, education, household size, etc.). The dependent variable of the first chapter is cultural taste, an empirical construct that I build by aggregating cultural genres into larger clusters defined by the inter-correlations between Spaniards' cultural preferences. The dependent variable used in the second chapter is cultural omnivority, a concept that is well defined in the literature. The third chapter attempts to

integrate the analysis of online and offline social relations under the concept of social capital. In what follows, I briefly describe the content of each chapter.

1.4.3 What facilitates differences in cultural tastes?

The first chapter is titled, "*Changes in Cultural Tastes: The Moderating Role of Social Class, Education, and Urbanization in Cultural Change in Spain*." It is dedicated to understanding the formation of genres into distinct cultural tastes, and it addresses the mediation roles of social indicators in determining one's probability of having a distinct taste.

The main argument here is that one's inclination towards a distinct cultural taste is related to birth cohort differences. This argument is supported by the individualistic model, which sees these differences as driven by personal (idiosyncratic) shifts in cultural preferences over birth cohorts. However, the convergence of distinct cultural tastes into one overarching taste might have been accompanied by structural changes favoring the tastes of the structural groups expanding the most. The structuralist model supports this argument, asserting that the differences in individuals' cultural preferences are a consequence of structural transformations in the class, educational, and rural/urban composition of society.

Using survey data from the Occupational Prestige and Social Structure 2006 survey (Estudio CIS-2634), I examined 25 cultural genres in three domains—television, music, and dressing style—and classified genres into three distinct taste clusters within the genres, using Lena and Peterson's (2008) approach to classifying tastes into the categories of intellectual, fictional, and traditional. To do so, I applied a fuzzy clustering technique rather than an inductive or hard-clustering algorithm as it helps me to project genre relations into one-dimension (cultural taste). Fuzzy clustering technique contributes to our understanding of genres in a unique way, as it considers the symbolic meanings attached to genres; these meanings are both unlikely to be univocal and are socially constructed at the individual and collective levels (Coulangeon & Lemel, 2007; Lena & Peterson, 2008). Next, I identified the direct and indirect effects of social

change on cultural taste to unravel the extent to which structural change is associated with cultural change. I also used a novel decomposition technique developed by Breen et al. (2012) specifically for multinomial logit models over these tastes to account for these changes.

The findings find evidence in favor of the shift towards a fictional taste (e.g., the inclination to prefer a fictional taste over an intellectual or realist one) occurred independently of structural changes, thus pointing towards a convergence in taste driven by the commercialization of culture and changes in values. The contribution of changes in structural factors to explain the shift away from realistic and intellectual tastes to a fictional taste is not significant. Furthermore, the effect of changes in education is generally greater than the effects of social class and residency on the relationship between social change and cultural taste. Lastly, the contrast between intellectual and realistic tastes is mainly explained by structural differences.

1.4.4 What are the mechanisms behind the emergence of cultural omnivority?

Chapter 2, which is titled "*Cultural Omnivores: Patterns of Leisure Activities in Spain*" shifts attention from the classification of genres and cultural tastes to a broader view of cultural activities by specifically focusing on the dynamics of leisure activities. It explores the underlying factors that can be used to explain differences in cultural omnivority, the dominant concept of social patterning of leisure activities (Peterson, 2005).

In this chapter, I present a summary of academic discourses, aiming to explain the emergence of an eclectic cultural taste by testing four arguments: The *cultural change argument* claims that younger people tend to be more exposed than older people to the individualism and the culture industry, giving rise to the former's omnivorous cultural taste. The *social class argument* explains the emergence of omnivority either as a distinct taste of upper-class people or from changes in the demographic composition of the class structure (Rees et al., 1999; Van Eijck, 1999). The *opportunities*

argument focuses on changes in access to education and social networks to explain the development of an eclectic cultural taste (Giddens, 1991; Fernández Mellizo-Soto, 2001). Finally, the *joint argumen*t deals with the mediating effects of class, education, and social networks on the relationship between social change and omnivority.

The empirical analysis in this second chapter uses the Barómetro-3179 study, which was conducted in 2017 by the Spanish Centro de Investigaciones Sociológicas (CIS). I first measured an omnivority score based on one's cultural participation matrix over 17 different cultural activities. I also developed a sophisticated variable to measure one's heterogeneous network level based on their social experiences that relate to their access to diverse social networks. Then, I tested the extent to which differences in omnivority can be explained by birth cohorts or by the mediating roles of social class, education, and social networks.

The results reveal the importance of the independent effect of social change and structural factors on the level of omnivority. The most striking observation from the analysis is that changes in class structure, heterogeneous networks, and cognitive abilities have a mitigating effect on omnivority. While the result is unexpected, it empirically reveals relationships that were previously overlooked. Lastly, the findings indicate that changes in class structure across birth cohorts partly increase heterogeneous networks and cognitive abilities and thus play a joint role in explaining omnivority differences across birth cohorts.

1.4.5 Are we constructing our offline social connections in a similar way to offline ones?

The third chapter of this dissertation is titled, "*Offline and Online Communities: Differences and Consequences for Social Inequalities.*" It deals with the fundamental question of whether the ways in which we construct our social connections differ in online vs. offline communities. In the third chapter, therefore, I shift the focus to social relationships in which cultural preferences are strongly related to constructing and how they are constructed and

maintained by cultural preferences. Thus, this chapter aims to explain how social change influences how we construct our cultural tastes, spend our leisure time, and develop our social relationships. It therefore particularly focuses on how people benefit from their social connections. To capture embedded resources in human interactions in online and offline social connections, I followed Lin's (2002) approach to social capital. In investigating the two main issues explored in the chapter—the extent to which online social life differs in fundamental ways from its offline counterpart, and who benefits the most from these differences—social capital is the dependent variable.

There are two competing views to explain how online and offline social capitals relate to each other. The *mirroring view* claims that the ways we foster and connect with our offline community extend to our online connections (Mckenna & Bargh, 1998; Hampton & Wellman, 2001; Wellman et al., 2001; Gil de Zúñiga et al., 2012). Furthermore, the socio-economic factors that explain differences in offline social capital also explain online differences (Tyler, 2002; Lin & Erickson, 2008). The *replacement view*, on the other hand, asserts that online social capital differs substantially from offline forms of social capital (Kraut et al., 2002; Baym, 2010). This is either in a democratic way, favoring the disadvantaged and giving them access to types of social capital previously reserved for the advantaged (boyd & Ellison, 2007; Ellison et al., 2011a), or in a way that reinforces previous social inequalities (McPherson et al., 2001).

To test the existing arguments, I adapted Lin's notions of accessibility and mobilization to my approach via the concepts of, respectively, embedded resources and network. I proposed a new way to measure online and offline social capital. Namely, I created a composite social capital score to capture the way people construct and benefit from their offline and online social networks. I used four equivalent indicators to construct the online and the offline versions the social capital indexes. Lin's distinction between access to, and mobilization of, network resources inform the construction of the four indicators in fundamental ways. Two indicators–intensity and multiplexity–aim to capture accessibility, and the other two–weak-ties and instrumentality– aim to capture resource mobilization.

Using cross-sectional survey data (Barómetro-3218) conducted in 2016 by the Spanish Centro de Investigaciones Sociològicas (CIS), I first tested the extent to which offline social capital differs from its online counterpart. Then, I compared these constructs across birth cohorts, education level, and social class to account for the effects of socio-economic groups on online and offline social capital levels. Thus, this chapter provides an extensive examination of the formation of online and offline social capital. It also examines the effect of socio-demographic variables on online and offline relationships, as well as their effect on access to the resources embedded in social networks.

The results provide evidence in favor of the *replacement view*, asserting that the composition of social capital differs across the online and offline constructs. I also explored which groups benefitted the most from these differences in the composition of the two forms of social capital. The findings show that the young, the educated and the upper classes make more use of online social capital and its more instrumental features, which has the results of widening the social capital gap between cohorts and between social strata, deepening social inequalities.

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2 CHANGES IN CULTURAL TASTES: THE MODERATING ROLE OF SOCIAL CLASS, EDUCATION, AND URBANIZATION ON CULTURAL CHANGE IN SPAIN

Abstract

Cultural tastes are influenced by social and individual dynamics. The structuralist and individualist models view these influences based on social structures and individual identities, respectively. In this chapter, I explore changes in cultural taste over different groups in Spain. Using data from a cross-sectional survey conducted in 2006, I deconstruct the drivers of cultural change to show how they relate in a social hierarchy. Correspondence analysis (MCA) and the fuzzy clustering method (FCM) are used to assess the roles of social structures and individual identities on cultural appreciation. I find that both paradigms are partly valid highlighting the need to combine the two models to provide a better account of cultural change.

2.1 Introduction

The relationship between social class and culture as traditionally understood is the subject of vigorous debate (Aparici & Sàez, 2003; Paddy, 2007). Transformed by mass urbanization, an expanding new middle class, and increasing public education, the socio-cultural system has evolved, with substantial social group differences in the cultural environment within which each group matures (Bennett et al., 2009; Chan, 2010; Reeves, 2016). Despite the pluralistic nature of this system, a new individualistic idea of cultural appreciation has arisen, challenging the way in which culture is perceived (Storey, 2006). It is therefore not surprising that the issue of cultural change is of popular interest in sociology (Storey, 2003; Reeves, 2014).

Studies on cultural change view cultural taste from two sociological perspectives. First, the *structuralist view* considers individuals' cultural preferences as an expression of their class, education level, and other socio-demographic characteristics (Bourdieu, 1984; Bourdieu, 1995; Katz-Gerro, 2002). This view predicts that cultural preferences evolve as a function of changes in social structures. The expansion of the new middle class, which is mostly occupied by educated younger people living in urban areas, has led to a new mode of cultural expression—namely, popular culture (Peterson, 1997; Adorno & Horkheimer, 2002; Christin et al., 2016).

The *individualistic view*, on the other hand, perceives cultural preferences as a manifestation of the multiple identities that develop in an increasingly complex social system, autonomously from the dominant social structure (Pichler, 2012; Rössel & Schroedter, 2015). This view argues that social and technological changes have freed cultural expressions from their structural roots, thanks to large-scale cultural production and increasingly individualistic ideas. Thus, aesthetic preferences have become more democratized and the legitimate culture that can be made accessible to a larger number of citizens (Featherstone; 1991; Bottero, 2004).

Despite the growing interest in the literature on these views, little work has focused on delineating the drivers of cultural change.

Understanding these drivers will inject a fresh perspective into the debates on social change and disentangle their relationship with the social structures that accommodate them. To address how such change reshapes the patterns of cultural preferences, I test the *structuralist* and *individualistic view*, using the case of Spain—a society that has experienced intense social and cultural change within a short period, particularly after the death of Francisco Franco in 1975. Using a multiple correspondence analysis (MCA) and fuzzy clustering method (FCM), I examine 25 cultural genres in three domains—television, music, and dressing style—and find three distinct taste clusters within the genres: intellectual, fictional, and traditional tastes. Multinomial regression models, along with a novel decomposition technique over these tastes, are used to account for these changes.

2.2 Theoretical framework

2.2.1 Theories of culture

a. The structuralist view

Structuralist scholars claim that cultural practices are the products of structural characteristics anchored on socio-demographic cleavages, especially social class and education (Coulangeon & Lemel, 2007).[1]

[1]Veblen's studies (1953) have prompted discourses on class, status, and their connections to lifestyle. His theory of "*conspicuous consumption*" pioneered discussions on the justification of differentiated lifestyles by asserting that people follow specific cultural consumption patterns to manifest positions, because of the associated rewards. Here, cultural consumption is rooted in the idea that people follow, consciously or not, specific patterns to maintain and strengthen their position, increase their life chances, and therefore reproduce social positions through the generations. Following this insight, the debate about class awareness and the recourse of dominant forms gave way to the exploration of a better understanding of class and culture relations.

According to this view, class-bounded cultural preferences[2] are not merely epiphenomena of class structure. Rather, they are the vehicles through which class relations and boundaries are partially built, maintained, upheld, and reshaped (Bourdieu, 1984; Lamont, 1992). In other words, cultural preferences are interwoven with the broader processes of social inequality, social exclusion/inclusion, and the unequal distribution of life chances.

This view manifests itself in Bourdieu's well-known *homology argument*, which highlights an isomorphic map between social class and cultural tastes. Bourdieu (1984) claims that high-class people tend to prefer a legitimate taste. Lower-class people, on the other hand, have a vulgar taste because of their limited access to scarce economic, cultural, and social resources. Therefore, this view considers cultural tastes (legitimate vs. vulgar taste) in the aggregations of genres hierarchically subordinated to each other. The legitimate taste of the upper class such as classical music or documentaries, that relate to contemplative, perfectionistic, intellectual, and cognitive connotations (classical music, documentaries, etc.) (Levine, 1998; Adorno & Horkheimer, 2002). Conversely, the vulgar taste of the working-class strata consists of less valued cultural expressions, such as folk music or soap operas, all of which are linked to the symbolic meanings of passive enjoyment, relaxation, and obedience (Peterson, 2005; Atkinson, 2011).

Bourdieu warns against what he calls a substantialist reading of his analyses (Bourdieu, 1998). Bourdieu's notion of *homology* does not

[2]Bourdieu (1984) constructed his social class as a function of the volume and the composition of three different types of capitals, namely economic, cultural, and social capital. According to him, these capitals are possessed at the individual level and convertible to each. Economic capital consists of material goods (assets that can be converted into money, property rights, income, etc.). Cultural capital includes institutionalized (academic credentials), objectified (cultural goods possessed) and embodied forms (one's lifelong disposition of mind, ideas, and approaches), and social capital refers to one's networks, connections, and friends as potential sources.

imply that people located in the upper strata of society adhere strictly to highbrow taste. What it does imply is that there is a structural affinity between the system of differences in the symbolic space (i.e., space of lifestyles) and the system of differences in the social space (space of classes). Thus, "*homology*" is a structuralist concept that does not dictate the content of what is being preferred by whom. As Bourdieu notes (1995, p. 112), "*the same taste might, in another state of supply, have been expressed in practices that are phenomenally quite different, but structurally equivalent*" (e.g., American popular music in Spain, or Spanish popular music in the USA—both acting as indicators of a refined taste, in sharp contrast with their low-class origins).

Bourdieu also highlighted an interdependence between the social and the cultural space. According to him, individuals hold temporarily multidimensional social spaces, so there is no such thing as pure social class effect on culture, but individuals with temporarily similar resources, similar possibilities, similar interests. Bourdieu and his followers, including Peterson (1992) see cultural practices (and consumption in general) as being socially structured and interrelated. To do so, Bourdieu introduced the trajectory concept to highlight that individuals' original social position influences their life-long trajectories although these are not totally shaped by social origins. Giddens (1986) further articulated this idea in his theory of structuration. He argues that social position has a significant effect on individuals' cultural preferences; however, individuals have the capacity to modify their course of their life.[3]

The *structuralist view* also points out that the level and type of education are strong predictors of cultural preferences, participation, and consumption; furthermore, they have long-lasting effects on

[3]Some scholars have highlighted the fact that a misfit between cultural trajectories and social environment (e.g., social class, cohort) may incite internal conflict. Individuals with inconsistent taste preferences might be plagued by cultural alienation and a loss of social acceptance from individuals in their social environment (Scherger & Savage, 2010; Daenekindt & Roose, 2013).

people's behaviors (Brint, 2006; Bennett et al., 2009). This is merely because the appreciation of distinct types of cultural tastes requires a certain level of self-awareness and cognitive abilities. Such skills are generally acquired during the formative years through the socialization process (Eliasoph & Lichterman, 2003), peer cultures (Coleman, 1966), and academic training (Erickson, 1996). Some scholars have shown that the number of years spent in school shapes an individual's information processing capacity. In turn, this affects their level of cognitive ability and leads to the appreciation of either highbrow or lowbrow tastes (Ganzeboom, 1982; Savage, 2000; Eliasoph & Lichterman, 2003).

Some studies have shown that education and class are not the only drivers of cultural tastes; also important are other salient cleavages such as gender or place of residence (Van Eijck & Knults, 2005; Jæger & Katz-Gerro, 2010). Lizardo and Skiles (2009), for instance, highlight a "*highbrow socialization process."* Others have indicated that married women with children are less likely to follow highbrow taste due to a scarcity of time and the burden of motherhood (Lizardo, 2006; Chan, 2010, Lizardo & Skiles, 2015). Also, people who have been divorced tend to have limited access to the highbrow taste because of the variation in the economic and cultural capital among those who are married or single (DiMaggio, 2001; Katz-Gerro, 2002). Lastly, some studies have shown that people who live in rural areas are more likely to follow lowbrow taste than those living in urban areas due to their limited access to the facilities serving cultural activities, such as concerts or cinemas, and the conservative norms shaped by local traditional communities (Van Rees & Van Eijck, 2003).

b. The individualistic view

Individualization-oriented sociologists assert a dynamic understanding of culture where norms, values, and actions are continually reproducing themselves depending on day-to-day activities (Beck & Beck-Gernshein, 2002; Storey, 2006; Bauman, 2000). They claim that culture is a social glue in daily communications, with its own capacity to satisfy personal needs and continually create new meanings (Bauman, 2007). Thus, the

individualistic view sees culture as a set of preferences and practices established in multiple and complex interactions within society (Giddens, 1991).

This view, therefore, negates a clear-cut hierarchical relation of genres, such as socially valued or non-valued cultural expressions, whose categories were associated with social class (Beck, 2006; Heaphy, 2007). Instead, proponents of the *individualistic view* claim that the boundaries between genres are waning due to the exponential diversification of cultural products and the commercialization of culture[4] (Veblen, 1953; Abercrombie, 1996; Cowen, 2002; Lizardo, 2005). For example, classical music became the background noise of shopping malls. Meanwhile, the Beatles—the legendary British rock band—have turned popular music into high art (Storey, 2006).[5]

The *individualistic view* asserts that class is no longer the best tool to explain the diversification at the micro-level of outcomes (lifestyles, attitudes, etc.), due to the overriding importance of macro-level relations (employment and economic relations) (Pakulski & Waters, 1996; Kingston, 2000; Clark, 2001; Beck, 2006). The supporters of this view argue that social and cultural boundaries have dissolved, and class-stratified societies have given way to new lifestyles (Firat et al., 1994; Berghman & Van Eijck, 2009). Rather than seeing society as homogenous and class-based, the *individualist view* recognizes a cultural diversity that advocates for an equal standing among all cultural tastes (Featherstone, 1991). It focuses on the aspects of lifestyles that are more fluid, flexible, and transient in contemporary western cultures (Bauman, 2000; Baudrillard, 2009). Theoretical assertions on the individualization of cultural patterns

[4]Note that the *individualistic view* accepts that some genres might coalesce into the sub-cultural forms with coherent and similar relations (such as Hollywood movies, punk culture, and avant-garde genres); however, it rejects the idea of distinct cultural tastes, such as legitimate or popular taste, which are bound to socioeconomic structures.

[5]See Adorno's and the Frankfurt School's studies for earlier insights and critiques on the effects of mass production of culture on aesthetic values and people (Adorno & Horkheimer, 1947).

have been criticized on the basis that they have little empirical support (Chan, 2010). For the critics, the pertinent question is not whether the uses of culture are socially structured, but how they are structured.

Table 2-1 below summarizes how the *structuralist* and *individualist views* differ in the formation of genre, taste, and culture.

[Table 2-1 about here]

2.2.2 The relations between social change and cultural taste

In the later decades of the 20th century, western culture experienced a turning point with the rise of service economies, rapid urbanization, and increasing public education (Inglehart & Welzel, 2005). Rather than working on farms or in the assembly lines of factories, and living in local communities, an increasing proportion of people started to work in settings where their ideas and abstract imaginations are enriched (Inglehart, 1997). The majority of people now living in modern cities where the convergence of social groups is reinforced through advanced communication systems and the diffusion of cultural elements from different social groups (Williams, 1983; Storey, 2003). Moreover, highly accessible and relatively cheap mass-produced cultural goods, which are rooted in the accelerating pace of technological innovation, make cultural consumption one of the core elements of our daily routines (Bernstein, 1994; Holt, 1997; DiMaggio & Muhktar, 2004).

Recent studies illustrate that the abovementioned socio-cultural changes have shaped cultural psychology (Hamamura, 2017), cognitive activities (Carlsson et al., 2015), personality traits (Twenge & Foster, 2008), and learning environments (Greenfield et al., 2003). These changes eventually affect how values and cultural preferences are constructed (Markus & Kitayama, 1991; Inglehart & Baker, 2000). In the next section, I review how the *structuralist* and *individualistic views* emphasize different aspects of these social changes to explain differences in cultural preferences—either as a consequence of some social groups becoming dominant in the social

structure, or as the result of the increased fragmentation, democratization, and fluidity of these preferences over time.

a. The structuralist view

The *structuralist view* asserts that socio-demographic changes, particularly those linked to class structure and the educational system, have led to an expansion of some groups at the expense of others. These changes have brought consistent transformations in interests and worldviews, which may help predict changes in cultural preferences (DiMaggio, 2001; Friedman, 2014; Savage et al., 2015).

Advances in technology have resulted in the growth of the knowledge and service industry (i.e., the new middle class), where information processing and managerial decision-making skills are in high demand (Lee & Mather, 2008). This growth also highlights the way in which urban/rural differences may be linked to class cleavages and occupational changes (Breen & Luijkx, 2004). For example, the mechanization of agriculture may have contributed to the demise of landless peasants who went to the city to join the industrial and service proletariat, thereby making the countryside ever more conservative. This consequently increased the proportion of technical workers and semi-professionals (the new middle classes), who mostly live in well-connected urban areas and are young with high levels of educational qualification, over the last few decades (Pakulski & Waters, 1996). Therefore, this view argues that there is also a growing middle class embracing forms of popular culture rooted in mass-produced genres targeted to a middle-brow taste (Bernstein, 1994; Laurent & Gershuny, 2000; Adorno & Horhkeimer, 2002). Lastly, the *structuralist view* concludes that the cultural distinctions between classes and education levels are still visible.

Despite the universalization of public education accompanying this economic growth, which increased the utility of higher education for many emerging occupations, the structuralists argue that the structure of segregation continues to permeate the educational system. This is exemplified by the expansion of post-secondary education and limited access to prestigious schools (Collins, 1977; Marks, 2005;

Stocké, 2007; Notten et al., 2013). For this reason, inequalities in access to quality education are still one of the primary sources of cultural differences.

b. The individualistic view

The individualistic approach acknowledges the growth of the professional sector and the expansion of the non-propertied middle-class; however, it asserts that the significant cultural changes affecting modern society come from the atomization of the occupational structure into a myriad of rapidly changing occupations (Grusky, 2005). Thus, such changes have prevented the rise of a homogeneous class culture due to the multiplicity of working experiences and conditions (autonomy, supervision, promotion prospects, etc.) and the cosmopolitan mix of voices in the workspace (Rodríguez-Menés; 2017; Owens, 2000; Quinn et al., 2018).

For some, class has lost its influence in shaping cultural taste (Beck, 2006). The universalization of public education is diminishing the effect of social structures on cultural preferences, since it facilitates a formal and informal exchange of cultural information among people from different backgrounds (Coleman, 1966; Gelder, 2007). Furthermore, it has standardized cultural expressions via formal curricula (Breen & Jonnson, 2005).

The *individualist view* also focuses on the effect of different living environments on an individual's cultural expression, particularly on the expansion of urban communities at the expense of rural ones, and the changes in values associated with such a transformation.[6] In this sense, the modernization theories of cultural change point towards a move from *Gemeinschaft* (communities) to *Gesellschaft* (societies) (Tönnies, 1957; Inkeles, 1983). Communal values stem from tightly knit social relations and collective values from small and segregated communities that give rise to distinct, but internally homogenous,

[6]Note that the focus is not on changes in urban/rural settings linked to changes in the occupational structure, but on transformations affecting all social classes.

cultural expressions (Inkeles, 1983). In contrast, in societies, members are interdependent in a more indirect way, and their cultural values and expression are linked to a more extensive cultural system of beliefs that favors progressive and individualistic ideas (Markus & Kitayama, 1991; Inglehart, 1997).

Inglehart (1997) has also highlighted the "*cultural shift*" witnessed in the last decades—from the materialistic values characterizing communities to post-materialistic ones—as the core element of modern societies. Older birth cohorts, who grew up under the economic scarcity of the Second World War, prioritize stability, traditionalism, and authority; meanwhile, the Post-War period of affluence and socioeconomic development has witnessed the growth of the younger birth cohort marked by an indifference to material concerns; dissidence; and the prioritizing of new values such as gender equality, self-expression, individualism, and freedom (Inglehart, 1997). Cultural preferences have accordingly shifted from a system of multiple, but internally consistent, cultural subsystems, to large cultural systems of fluid and often inconsistent preferences expressed by loosely interconnected individuals engaged in a multiplicity of social interactions within complex social systems (Holden, 2004; Taylor, 2009).

A body of empirical studies shows that younger people no longer consider a "*legitimate taste*" as a superior taste (DiMaggio & Mukhtar, 2004; Van Eijck & Knulst, 2005). Berghman and Van Eijck (2009), for instance, found that the younger people perceive classical music as a passive and relaxing background genre, without assigning it any status meanings. Younger people, regardless of their class and educational background, follow global and trendy cultural genres (Bell & Jones, 2014) and find highbrow taste to be "boring" and "old-fashioned" (Willis, 1990). Taylor (2009, p. 417) states, "*a loose hierarchical structure still exists, but it is not a structure that place knowledge of "legitimate culture" alone at the pinnacle: it is now the trendy changes rapidly and sometime radically – unlike the world of high culture, where change is much slower*."

Lastly, while the *individualistic view* also places much importance on the mass production of cultural goods, it argues that this massification

contributed to the diversification and democratization of cultural expressions by making them more accessible—thereby playing an essential role in social cohesion (Smith & Clurman, 2009). The mass production of cultural goods, combined with the universalization of education and the spread of communication technologies, has ultimately made all cultural genres financially available and cognitively understandable, giving rise to more democratic, dynamic, and diversified forms of culture (Laughey, 2010).

In other words, social and technological changes generated new tastes that mostly affect the aesthetic preferences of those who were born and grew up with them. Thus, the youngest cohorts hare more likely to have a higher level of possibilities to choose a cultural pattern that does not correlate with their socioeconomic background. Therefore, they tend to ignore traditional forms of cultural consumption, instead benefitting from the variety of emerging domains and following a more individualist pattern (rather than only class-bounded relations) (Storey, 2006).

2.3 Research design

2.3.1 Hypotheses

To illustrate how changes in cultural preference are related to social change, I focus on Spain—a society that has experienced a radical socio-economic transformation in a compressed period of time (Payne, 1997; Escosura, 2007). This chapter has two objectives and two related sets of hypotheses. The first objective is to assess which cultural forms better account for Spaniards' cultural preferences. The second is to evaluate which of the two theoretical views presented above can best explain the differences in the cultural expressions in Spain. To achieve the first objective, two alternative hypotheses are formulated as follows:

Hypothesis 1a (Individualistic view): The form in which cultural preferences are expressed in Spain is personal and fluid for many distinct genres, rather than associated with individuals' location in the social structure.

Hypothesis 1b (Structuralist view): The form in which cultural preferences are expressed in Spain is through distinct cultural tastes representing the main socio-demographic group identities.

The second objective will be attained by testing the following two alternative hypotheses:

Hypothesis 2a (Individualistic view): Differences in cultural tastes in Spain can be explained by personal (idiosyncratic) shifts in cultural preferences unrelated to changes in the demographic weight of the main socio-economic groups and will be manifested in significant net birth cohort effects.

Hypothesis 2b (Structuralist view): Differences in cultural tastes in Spain can be explained by taking into account demographic changes in the weight of the main socio-economic groups making up the social structure.

While the hypotheses are framed as being alternative to each other within each set, they may be also complementary. This possibility is also tested in the chapter.

2.3.2 Data

For this chapter, I use the survey (Estudio CIS 2634) on Occupational Prestige and Social Structure (OPSS) carried out by the Spanish Centro de Investigaciones Sociológicas (CIS) in 2006 on a representative sample of about 8,000 individuals. As one of the primary concerns of this chapter is the relationship between social class and cultural preferences, the analysis is restricted to economically active individuals between 18 and 67 years of age, for whom there is information on occupational activities. The valid number (N) used in the analyses after excluding non-active respondents and missing cases in the relevant variables is 2,955 respondents. Sampling weights were applied to correct for disproportionalities in the sampling frame, and robust standard errors were calculated to account for such a correction.

a. Dependent variable

OPSS asked the respondents to choose one from among thirteen types of T.V. programs,[7] eight music genres,[8] and six dressing styles.[9] These cultural ambits (T.V., music, and dressing styles) have long been of central interest in the sociology of culture. Some Marxist scholars of culture claim that music and T.V. preferences are less constrained by exogenous factors, such as individuals' geographic limitations, and that they are an essential part of daily cultural consumption. These preferences are also influenced by primary groups, such as family and peer groups (Bourdieu, 1984). Adorno and Horkheimer (2002) focus on these ambits as outcomes of the culture industry, highlighting how mass production and the standardization of musical and T.V. genres contribute to the creation of a passive consumer. Others have emphasized the increasing number of hours that people spend listening to music and watching T.V. (Bernstein, 1994), and the consequent role that these contents play in maintaining social interactions within socially oriented groups (Lizardo & Skiles, 2016).

Lastly, it has been noted that dressing styles change along with norms and moral standards (Peterson, 1997), and they have maintained their

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[7](1) News and Info (News and informative programs), (2) Debates (and other colloquiums), (3) Documentary (and other educational programs), (4) Movies, (5) Series (and comedies), (6) Reality shows (Big Brother, etc.), (7) Contents, (8) Sports Programs, (9) Gossip (and other magazine programs), (10) Soap operas, (11) Tele sales, (12) Other TV Programs, and (13) Not watching TV. (11) Tele Sales, (12) Other TV Programs, and (13) Not watching TV.

[8](1) Classics, (2) Jazz & Blues (and Soul), (3) Pop & Rock, (4) Electronica (Techno, House, Disco), (5) Urban (Heavy Metal, Punk, Hip-Hop, Rap, Reggae etc.), (6) Country-Protest, (7) Folk (Spanish music, flamenco, etc.), and (8) Not listening to music.

[9](1) Casual (Normal cut and good price), (2) Fashionable (stylist and reflecting your personality), (3) Sober (businesslike and correct), (4) Extravagant (flamboyant and far-fetched), (5) Comfortable (relax and comfy), and (6) Trendy (elegant and vogue).

importance as a manifestation of social class shaped by the fashion industry (Bourdieu, 1984).

b. Independent variables

This chapter uses Goldthorpe's broadly accepted 7-category class schema to measure individuals' social class (Evans & Mills, 1998; Goldthorpe & McKnight, 2006).[10] The classification considers multiple criteria of economic stratification and is therefore versatile for studies of the formation of culture (Breen & Luijkx, 2004). The OPSS survey also contains information on many other socio-demographic variables such as residential area (recoded into two categories in the analyses, rural and urban), educational level completed (recoded into five levels), and marital and parental status (Christin, 2012).

To analyze two social change effects using the data from the cross-sectional survey, I parsed the compositional shifts in education, class, and location (urban/rural). To account for the effect of social change on cultural taste, I used birth cohort as a variable, with five categories calculated using the respondents' birth years. I argue that people who were born, got married, started to work, or graduated in the same year tend to have similar common values because of a set of social and other exogenous macro changes in their lives (Reeves, 2014; Smith & Clurman, 2007). Thus, each birth cohort is expected to group individuals with shared values shaped by the political, economic, and cultural conditions of the periods in which they lived at different ages (Smith & Clurman, 2009).

[10]Even though Goldthorpe tends to reject the view that class is strongly associated with cultural preferences, this chapter focuses on the emergence of the new middle class in terms of the effects of class on cultural preferences. In addition, I do not use the Goldthorpe 7-class scheme to predict the adherence to different taste clusters.

2.3.3 Methods

The statistical analyses of this chapter consist of four parts: (i) exploring associations between musical genres, T.V. programs, and dressing styles; (ii) clustering these genres and styles into tastes; (iii) classifying individuals by their tastes; and (iv) running multinomial regression models to explain individuals' differences in tastes.

a. Exploring the associations within genres and styles with multiple correspondence analysis (MCA)

Multiple correspondence analysis (MCA) is a standard data analysis technique used in sociology to identify spatial relationships among cultural preferences and genres (Coulangeon & Lemel, 2007; Chan, 2010). To capture these associations, MCA generates an indicator matrix, with the respondents in rows and cultural preferences as columns. Then, it calculates the chi-square distances between the genres based on similarities and differences in respondents' preferences. Finally, MCA represents the genres as points in a low-dimensional Euclidean space (i.e., two or three dimensions) where the closeness between the genre locations (coordinates) on the dimensions indicates a strong connection or association between them (Greenacre, 2007).

b. Clustering the genres using the fuzzy clustering method (first FCM)

The second part of the analysis aims to group a set of genres into two or more clusters according to their closeness in the n-dimensional space identified by the MCA. The objective is to collapse this space into a single dimension, where different tastes or clusters can be located. There are two types of algorithms that can perform such a clustering exercise: hard-clustering algorithms, such as hierarchical or Euclidean clustering, where the genres can only belong to one exact taste; and fuzzy clustering algorithms, where the genres are aggregated into less neat clusters, and where each genre can belong

to more than one cluster with different intensities (Le Roux & Rouanet, 2004).[11]

In this chapter, I apply the fuzzy clustering method (FCM), as it considers the possibility that genres may not be aggregated into crisp, or pure, tastes. This seems plausible since the symbolic meanings attached to genres are unlikely to be fixed and univocal, and they are socially constructed at both the individual and the collective levels (Coulangeon & Lemel, 2007). The production and marketing of genres (i.e., the time and place where they emerge and are consumed) influence the meanings attached to them (Peterson, 2005). In other words, genres may be perceived, appreciated, and appropriated in qualitatively different ways (the dimension of "*how*" in cultural research) (Lena & Peterson, 2008). For instance, the symbolic meanings attached to Jazz & Blues have changed over time. African American musicians created Jazz & Blues as a form of folk music; it then spread around the U.S. and Europe via many local, independent, and popular musical styles. Finally, it began to be considered an expression of the highbrow taste (Gioia, 2011). Thus, it seems reasonable not to classify a genre such as Jazz & Blues into only one taste.

The main objective here is to collapse the bi-directional cultural space uncovered by the MCA into a single dimension, where different tastes or clusters could be located. The grouping of genres in the two-dimensional space into three clear clusters suggested that this could be done without any loss of information. The fuzzy method of clustering helped me to group the genres into the three tastes with higher precision (if with different degrees of intensity). In other words, FCM facilitates the classification of genres into more than one taste, with different degrees of intensity. To do so, it first determines the optimum number of tastes (clusters) by using the coordinates of the genres on the map produced previously by MCA. Next, it assigns

[11]To the best of my knowledge, the fuzzy clustering technique has never been used in quantitative sociological studies.

each genre to the tastes with a membership degree,[12] with the assumption that the sum of genres' membership values across tastes equals one. For instance, suppose a three-cluster solution was obtained after running FCM (Table 2-2); the genre membership scores of Jazz & Blues in Taste 1, Taste 2, and Taste 3 would be 0.08, 0.1, and 0.82, respectively, where the sum of the scores is 1.

[Table 2-2 about here]

In the last step, FCM assigns each genre to a final taste, where the genre has the maximum genre membership score. In the case of the aforementioned example, Jazz & Blues' final taste would be Taste 3, since Jazz & Blues' genre membership score in Taste 3 is the highest one (0.82). In this way, I employ an inductive approach to cluster the genres, such as considering Jazz & Blues as a socially valued cultural expression in the first place.

Once the genres are clustered into tastes with their respective genre membership scores (in our example, Jazz & Blues is in Cluster 3 with a membership score of 0.82), the following part of the analysis seeks to determine individuals' cultural tastes based on their genre preferences across the cultural ambits of T.V., music, and dressing style, and the taste to which each genre has been assigned with different degrees of crispiness. In what follows, I explain how to calculate the sum of the genre membership scores of an individual's genre preferences in each taste.

c. Determining individual taste using the fuzzy clustering method (second FCM)

In the analysis, all individuals who chose the same genre have the same genre membership score in each taste. For instance, as Table 2-3 below shows, the arbitrary individuals A and B chose Movies as their primary T.V. preference and have the same genre membership

[12]Or probability of a genre belonging to each taste, ranging from 0 (absolute discreteness) to 1 (absolute belonging).

score in Taste 3 (0.65, the highest across all three tastes). The table also shows how an individual's genre preferences are scattered across cultural tastes. For instance, Individual A's genre preferences are Movies in T.V., Classic in music, and Casual in dressing style, and their genre preferences belong to Taste 3, Taste 1, and Taste 2, respectively. On the other hand, Individual C's genre preferences—Series, Urban, and Fashionable—are all within the same Taste 3.

[Table 2-3 about here]

By calculating the total genre membership scores for each taste, I aimed to create a taste matrix for each individual. Table 1-4 elaborates on the previous example and shows three individuals' taste matrix with the corresponding scores in each taste. For instance, Individual B has a score of 0 in Taste 1, since they have no preference for any of the genres clustered by the first FCM analysis in this taste. However, their score in Taste 2 is 1.14 (the sum of the genre membership scores for Folk and Comfortable), and their score in Taste 3 is 0.65 (corresponding to their preference for watching Movies). These sums are the basis for classifying each respondent in the survey in any of the tastes—the one with the highest sum.

The assignment of respondents to any given taste based on the sum of the genre membership scores may lead to a situation where two people with very similar cultural choices are classified into different segments because of tiny differences in their ratings, or a situation where people whose preferences are diversified are forced into one taste (as depicted in the case of respondent A in Table 2-3). To avoid such instances, I ran a second FCM over the individuals' taste scores to measure the diversification of the preferences among the tastes. The taste membership score of the second FCM, which is labeled as taste consistency score in this chapter for the sake of better interpretation, was used as a control variable in the models. One receives the lowest taste inconsistency score (taste membership score) when they diversify their preferences across tastes (see Respondent A's score of 0.18 in Table 2-4), and the highest score when they stick to only one taste (see Respondent C's score of 1.0).

[Table 2-4 about here]

d. Multinomial Regression Model using Breen et al.'s (2012) khb model

To test the effect of social changes on cultural preferences, the last set of analyses consists of a multinomial regression, with respondents' cultural taste as the dependent variable. Birth cohort, which aims to capture secular change, is the main independent variable; class, education, and residency are variables mediating the effect of birth cohort on cultural tastes. The aim is to identify the direct and indirect effects of birth cohorts on cultural taste. If birth cohort continued to have a (direct) effect on taste, net of the mediator variables (indirect effects), then cultural change could not be associated with structural changes in the class and educational structures, or in patterns of residency.

In logit and multinomial logit models (unlike in linear regression models), the decomposition of the direct and indirect effects of an exogenous variable cannot be assessed by comparing the reduced model without the mediator variables with the full model. Changes in the coefficient for the exogenous variable (here, birth cohort) after adding the mediators may be due to changes in the residual variance of the model generated by the inclusion of the variable, rather than (or in addition) to the correlation between the key exogenous variables and the newly added mediator variables, and the effects of the latter on the dependent variable.

Breen, Kalrson, and Holm's (2013) khb method addresses this problem by rescaling the variance of the full and reduced models using the same metric, making it possible to compare coefficients across models (Buis, 2010). The khb method allows for the estimation of the percent reduction in the birth cohort effect after adding another variable. Hence, it can be used to estimate how much of the birth cohort effect is explained by changes in these mediating variables. The khb method also makes it possible to identify which of the mediators (class, education, or residency) contributes the most to the confounding.

Figure 2-1 below graphically represents the models to be compared to assess the indirect and direct effects of the birth cohort (i.e., the impact on cultural taste mediated or not mediated by structural change). In the design, birth cohort is the key variable whose effect is to be decomposed. Class, education level, and residency are the mediating structural variables through which birth cohort might be partly operating over culture.

Other variables not shown in the graph, such as marital and parental status and gender, are used as control variables (concomitant variables). The khb method allows for the estimation of the percent reduction in the birth cohort effect after adding another variable, and hence how much of the birth cohort effect is explained by changes in these mediating variables. The khb method also makes it possible to identify which of the mediators (class, education, or residency) contributes the most to the confounding.

[Figure 2-1 about here]

2.4 Findings

2.4.1 Descriptive analysis of the genres

Table 2-5 illustrates that Spaniards' main preferences in T.V. viewing tend to concentrate in Movies (24%), News (21%), Documentary (14%), Series (13%), and Sports programs (13%), which indicates a higher level of diversification. The least popular genres are Soap opera (1%), Reality Shows (<1%), and Other-TV programs (<1%). Regarding the preferences in music, nearly half of the respondents (49%) indicated Pop & Rock as the genre they listen to the most. Only 4% of the respondents named as their main musical preference Country, and there is a small group of respondents (3%) who do not listen to any kind of music. For dressing styles, Comfortable (46%) and Casual (28%) are preferred by the largest proportions of Spaniards, while only small percentages prefer Trendy (2%) and Extravagant (1%) dressing styles.

[Table 2-5 about here]

The figures below provide a snapshot of the cultural differences between birth cohorts. There is a clear tendency among younger people to watch Series, Movies, and Sports programs on T.V.; to listen to Pop & Rock, Urban, and Electronic music; and to like Fashionable dressing styles. In contrast, older people's primary interests are in Debates, Documentaries, News, Folk and Classical music, and in Sober dressing styles. Of respondents born between 1940 and 1950, 76% like Classical or Folk music; over 52% indicate News or Documentaries as their preferred T.V. programs; and 33% say they like to dress in a Sober manner. These specific cultural genres attract little attention from younger people. For instance, only 3% of respondents born between 1980 and 1990 named Classical music as a primary musical preference. At this stage, the extent to which these variations are due to differences between generations or to the ways in which people change over their lifetimes is undetermined. Yet, it is reasonable to assume that cultural differences across the birth cohorts remain relatively stable throughout individuals' lives (Christin et al., 2016).

In sum, the graphs provide a clear picture of the differences between cultural preferences by birth cohort, which might be considered as an evolution of preferences. In what follows, I group these genres into distinct tastes with the help of MCA and fuzzy clustering techniques.

[Figure 2-2 about here]

[Figure 2-3 about here]

[Figure 2-4 about here]

2.4.2 Genre classification

Spaniards' main preferences for T.V. viewing, music genres, and dressing styles can be placed onto a cultural space with the help of

multiple correspondence analysis.[13] Spatial proximity of points in the cultural map indicates that individuals with these genre choices also tend to have similar choices in other ambits. It indicates the extent to which they could form a cluster or "*taste*." For instance, the smaller distance between Pop & Rock, Reality Shows, and Movies indicates a possible cluster. To cluster similar genres into tastes, I apply the fuzzy clustering method (FCM) using NCSS software. To do so, I used the genre coordinates in the two-dimensional map. For instance, the coordinates of Electronica are 0.366 on Dimension 1 and 0.122 on Dimension 2. After running the FCM over the genres, the program decided the optimum number of clusters is three, and consequently assigned the genres to three clusters with different membership scores, as shown in Table 2-6 below.

[Table 2-6 about here]

The higher membership score in Table 2-6 indicates that the genre is more unequivocally part of the cluster and that it contributes more to define it Lower scores, on the other hand, imply that a genre is less specific to the cluster and shares more with others. For example, Comfortable dressing belongs to Cluster 1, with a membership score of 0.36. The scores for this genre in the other two clusters are almost as high as in Cluster 1: 0.34 in Cluster 2 and 0.31 in Cluster 3 (these scores are not shown in Table 2-6 but are available upon request). This means that dressing comfortably is a choice common in all clusters, albeit slightly more so in Cluster 1. This characteristic of FCM becomes an outstanding advantage for assigning individuals to these clusters (tastes) based on the membership scores in the genre preferences.

[13]Eigenvalues, the amount of variance explained by each dimension, helped identify the number of dimensions to be selected. I decided on a two-dimensional solution, since the cumulated explained variation reaches 68.3%. The contributions of the third (5.48%) and the fourth (3.79%) are small enough to exclude them.

2.4.3 Cultural tastes

Based on the grouping of genres within the three clusters and their scores in each, it is possible to interpret the symbolic cultural meanings or taste of each cluster. The inductive approach followed here to explain the groups is similar to Lena and Peterson's (2008) approach to classifying tastes based on the distinctive market relations and aesthetics of the genres included in each. Figure 2-5 below presents the classification.

[Figure 2-5 about here]

a. Realistic taste (Cluster 1)

The genres classified within the realistic taste are permeated by conservative and traditional symbolic meanings, in the sense that they show great concern, endorsement, or even devotion for customs and ritualistic practices[14] (Peterson & Lane, 2008). Realistic genres attract people who like to see things in simple ways, as they occur in their daily lives (Aguaded & Díaz Gómez, 2008). Folk music, T.V. Contests, Gossip programs, and Soap operas highlight the daily burdens and joys of real people, acting as a mirror (aspirational or reaffirming) of people's real lives (Aparici & Sáez, 2003; Gubern, 2004). Likewise, News presents to T.V. audiences a real-time description of the world (López, 2004). Lastly, a disinterest in watching T.V. or listening to music is another indication of people's preferences for things happening in real life (Laughey, 2010).

b. Fictional taste (Cluster 2)

Global cultural industries permeate many of the genres that form what is labeled here as the fictional taste. Movies, Series, Reality Shows in the T.V. ambit, and Pop-Rock in music, are standardized and highly commercial cultural products that aim to appeal to a large

[14] It is an interpretation with no reference to economic conditions even though some of its cultural characteristics might be associated with low income and often rural population segment.

mass of consumers with many different socio-demographic characteristics (Storey, 2006). For instance, Trendy and Fashionable dressing styles are instruments for reflecting individuals' personality and self-expression. At the same time, they align with global trends in cultural consumption (O'Gonnor, 2004). Urban (heavy metal, punk, hip-hop, rap, reggae, reggaetón, etc.) and Electronic music are the expressions of distinct subcultures, and yet, ironically, they are channeled to the broad public through the mass-commercialized cultural industry (Storey, 2006; Lena & Peterson, 2008). Even though "*industry-based genres*" vary continuously, as in the case of urban and electronic music, their means of distribution (e.g., online platforms, music production firms) unify them in terms of the ways they are distributed to the public and their level of accessibility. Lastly, Extravagant dressing styles allow consumers to express themselves in unusual and narcissistic ways, and yet they are still defined by the fashion industry (Gelder, 2007).

Baudrillard (1983, 2009) perceived these cultural forms of expression linked to the mass industry from a different standpoint. He claimed that personal relations have been replaced by fictional relations where simulations play a crucial role in constructing newer identities and collective values, and where the distinction between real and fictional life is no longer obvious. Thus, the label of fictional taste aims to capture the commercialized, standardized, rapidly changing cultural contents of the genres (i.e., T.V. series' new episodes that are released weekly). These genres provide an alternative and global "*reality*" for the individuals who consume them, a reality in which they can enjoy fake pleasures and endless hopes removed from the burdens of everyday life (Adorno & Horkheimer, 2002; Storey, 2006; Bauman, 2007).

c. Intellectual taste (Cluster 3)

The genres classified within the intellectual taste express the beliefs, practices, and attributes of a distinct type of intellectual people who appreciate reflexive thought and cultivate perfectionist, sophisticated, and contemplative ideas (Peterson, 2005). As expected, Jazz & Blues and Classical music have the highest contributions to this cluster as they are mostly considered an

expression of highbrow intellectual and cultural taste (Gioia, 2011). Watching Debates and Documentaries on T.V. or dressing soberly are other ways for intellectual taste aficionados to stimulate the exchange of ideas with their peers and to enhance their lifelong learning skills (Lena & Peterson, 2008).

2.4.4 Individual's cultural taste

As noted in the methodology section, the membership scores assigned to each genre form the basis for classifying the respondents in the survey to any of the three tastes. First, respondents' genre choices in each of the three domains (T.V. viewing, music listening, and dressing styles) were substituted by the corresponding genre score in each taste. Second, the sum of respondents' genre scores in each taste were calculated. And, finally, the individual was classified in the taste in which they have the highest scores (with different degrees of crispiness, depending on how much the sum approaches the value of 3, the maximum possible).

Table 2-7 shows the distribution of tastes for the valid sample in the OPSS survey. Overall, the highest proportion of people were distinctly assigned to a fictional taste (41%), and the lowest proportion was assigned to a realistic taste (21%). Another interesting result is that the average taste inconsistency score is highest for intellectual taste (0.45), while the lowest is for fictional taste (0.36). This means that those clustered into the fictional taste tend to choose their genres within this taste (i.e., homogeneous taste or cultural univores); meanwhile, those assigned to the intellectual taste are inclined to diversify their preferences across the tastes (i.e., heterogenous taste or cultural omnivores) (Peterson, 2005). Also, there is a tendency among the younger birth cohorts to have a fictional taste rather than a realistic or intellectual one. The highest proportions of people clustered in realistic (63%), and intellectual (32%) tastes belong to the oldest birth cohort. The tastes seem to be segregated by social class and education, where upper class and educated people tend to have an intellectual and fictional taste. In contrast, lower-class people are more bound to the realistic taste. Lastly, the proportion of fictional taste is highest for those who are women, single, and living in urban areas.

[Table 2-7 about here]

2.4.5 Predicting taste membership: Multivariate Analyses

a. Birth cohort

The results in Table 2-8 indicate that the log-odds of preferring the fictional over either the realistic or intellectual taste increase almost monotonically over younger birth cohorts. For instance, when juxtaposed with individuals born between 1940–1950, individuals born between 1980 and 1990 are over 18 times ($e^{2.94}$) more likely to have a fictional taste (F.T.) than a realistic taste (R.T.), and over 12 times ($e^{2.54}$) more likely to have an F.T. than an intellectual taste (I.T.). However, the odds of having an I.T. than an R.T. do not change by birth cohort. Hence, the results provide some preliminary support for *Hypothesis 2a*, namely that cultural change has been manifested in the preferences for fictional forms of cultural expression across all classes and educational levels.

[Table 2-8 about here]

b. Social class

The results in Table 2-8 also show that the differences between the service class (the class of reference) and the other social classes are more numerous and more significant regarding the log odds of an intellectual (I.T.) taste rather than a realistic (R.T.) one.[15] All classes have significantly lower log-odds than the service class (professionals, semi-professionals, and top managers) of displaying an intellectual taste rather than a realistic one. To a lesser extent, this probability also holds for non-manual workers such as clerks,

[15]With reference to Weber, Chan, and Goldthorpe (2010), who argue that cultural preferences are largely unrelated to class but rather are highly associated with social status. Even after controlling the models for social status (standardized scores for 3-digit occupations using CNO-94) and replacing social class by social status (not shown here, but available upon request), I still find a significant effect of cohort, education, and the new middle class—to a lesser extent due to the collinearity between the two—in predicting adherence to different taste clusters.

salesclerks, waiters, or caregivers. This points towards the importance of ideational forms of cultural expression in the service class linked to higher use of information processing and problem-solving capacities at work, and more bureaucratic environments. These capacities are less pivotal among farmers and farm workers, who, in contrast, opt for realistic forms of cultural expression more consistent with their manual tasks and higher environmental uncertainties (climatic changes, seasonality, etc.).

The second column shows that farmers and farm workers are also significantly more likely, along with skilled workers and craftsmen in other sectors, to opt for fictional rather than intellectual forms of cultural expression compared to the service class. This is also true of the remaining classes, but the differences with the services class are not significant. Once again, this highlights the importance of ideational and intellectual forms of expression in the service class, but also of the manual classes' higher exposure to—or lower capacity to insulate themselves from—the mass consumption of standardized and fictional symbolic products promoted by the culture industry.

Note that in the manual classes, preferences for realistic genres are more dominant than preferences for fictional ones. This is also significant in all classes, but less markedly so. The contrasts in the third column of Table 2-8 show that unskilled workers in all sectors and farmers are less likely to have fictional rather than realistic cultural tastes. This may be due to their higher socioeconomic vulnerability, which compels them to pay more attention to real-life events.

c. Education, urban/rural habitat, and other variables

Regarding education, Table 2-8 shows that respondents with lower levels of education also have significantly lower log-odds than respondents with a post-secondary education (the reference category) of having an intellectual or a fictional taste than a realistic one. This is consistent with my previous findings regarding the service classes' higher odds of embracing ideational, intellectual forms of cultural expression, and manual classes' higher preferences for the realistic taste, which is hardly surprising, given the well-known correlation

between education and social class (Breen & Jonnson, 2005). Note, however, that the estimates for educational differences are net of those for class differences, indicating that both cognitive and experiential differentiation play a role in explaining cultural preferences.

As for the impact of urban/rural differences on cultural taste, the results show the only significant difference has to do with urban dwellers' higher log-odds of preferring the fictional over the intellectual taste. Regarding the taste inconsistency, I see a significant positive effect of homogenous preferences (taste consistency) on the probability of having a fictional taste rather than I.T. or R.T. On the contrary, having eclectic preferences (taste inconsistency) in the different tastes increases the probability of having an intellectual taste rather than R.T.[16] Finally, the analyses of the control variables show that respondents' gender, marital, and parental statuses do not have any significant effect on cultural differentiations.

Overall, the results support *Hypothesis 1b* that Spaniards' cultural preferences are expressed in the form of tastes well-rooted in class and educational structures. These preferences mainly follow a highbrow (intellectual) vs. lowbrow (realistic) divide that separates the service class and most educated strata from the less educated manual classes. The contrast that separates the fictional taste from the other two is also rooted in class and educational differentiation. Still, these differences are fewer and shallower, thus pointing towards more heterogeneous and individualistic social support for fictional taste, and hence for the (partial) validity of *Hypothesis 1a*.

However, it is also possible that this convergence in cultural taste for fictional genres has been accompanied by structural changes favoring

[16]I also tested the models for a possible interaction between cohort and taste inconsistency scores to see whether there is tendency among young people to have an omnivore taste. There is a slight inclination among middle-aged people to have an inconsistent taste, yet this is not significant (not shown here). Also, there is no interaction of effects between class and taste inconsistency and between education level and taste inconsistency on predicting the taste of individuals.

the tastes of the structural groups expanding the most over time. This possibility is tested in the following section.

d. Mediating roles of education, class, and residency

I next decomposed the effects of the birth cohort (treated as an exogenous variable) on taste. It is an indirect way of measuring the mediating effect of social position indicators on individual cultural practices as if the khb method is conducting a causal structural equation model. Table 2-9 shows the direct effects of birth cohort as well as the indirect effects through structural mediators (class, education, and residency). I calculated the direct effects through the reduced model presented previously in Table 2-8, including all independent variables (exogenous, mediators, and controls). The total effect comes from a reduced model that includes only the birth cohort plus the controls.

The difference between the full and the reduced models provides an estimate of the indirect effects, or how much of the birth cohort effects (changes in tastes) be attributed to the changes in the socio-demographic structure (in occupational and educational groups' sizes, given their cultural preferences). These indirect effects can be summarized in terms of the contribution of each of the mediator variables (the last three columns in Table 2-9), separately for the odds of preferring each taste over the other two.

[Table 2-9 about here]

A negative percent contribution means that differences between younger birth cohorts and the oldest birth cohort in preferences for one taste over another can be partly explained (as a percentage) by the demographic contraction (expansion) of the groups—classes, educational, and residential—that liked (disliked) it the most in the younger birth cohorts relative to the oldest. A positive contribution indicates the opposite; namely, it shows that the groups that liked (disliked) one taste over any of the other two were the ones that expanded (contracted) the most in the younger birth cohort vs. the oldest, thus obscuring the net (direct) impact on cultural changes of non-structural, individual factors affecting all socioeconomic groups.

Thus, the negative percentage for social class and the 1950–60 birth cohort (column 7) corresponding to the fictional vs. intellectual contrast, displayed in the top of Table 2-7, means that the service class—the one most inclined to prefer fictional genres over intellectual ones—expanded the most in this decade compared to the precedent one, and/or that the classes that prefer fiction over intellectuality (e.g., farmers and farm laborers) contracted the most. Hence, the general shift towards fictional taste across all classes should have been more distinct. After 1960, however, class demographics changed in the opposite direction, indicating a move towards the fictional taste. Yet, the results for the youngest birth cohort should be interpreted with caution for all contrasts, because the very high levels of unemployment among youth in contemporary Spain make it more challenging to generalize estimates for the entire birth cohort.

I next used the changes in education to explain broader cultural shifts, but without exploring whether class or residency are rooted in how these shifts played out. As for the effect of educational transformations on birth cohort changes in the same preferences for fictional vs. intellectual genres, the negative percentages are shown in column 8. This effect is generally higher than the effects of social class and residency, which indicates that the relative demographic weight of the most educated people—the least likely to prefer a fictional taste over an intellectual one—does not increase across birth-cohorts. In other words, the general tendency towards a fictional taste across all educational levels would have been more visible. Lastly, urban/rural changes seem to have contributed little to explaining birth cohorts' cultural shift towards the fictional taste from the intellectual one (or towards any other shifts for that matter).

Overall, the contribution of class, educational, and residential changes to explaining the shift away from realism and intellectualism towards fiction is not significant, except for the individuals born between 1960 and 1980. This can be explained by the fact that groups that embrace the realistic taste most clearly—the manual classes and the least educated—are also the ones that contracted the most across birth-cohorts (see column 4). On the contrary, the indirect shifts away from a realistic taste towards intellectual ones via changes in the

socio-demographic structure are high (see columns 7 and 8), as such a distinction is the most clearly classed set of practices.

It may be argued that the effect of education on taste may change because of changes in who is attending university. That is, an expansion in education may mean universities admit people who are less inclined to participate in intellectual tastes, which relates to the individualization thesis and might explain the negative indirect effect of education (-38% in column 8) for the youngest birth cohort. There is some evidence that compositional shifts are occurring as the youngest individuals (born between 1980-90) have the least structural constraints: the total indirect effect is -3% for F.T./I.T., and is -2% for F.T./R.T. However, the results are not significant in the models (see columns 2,3, and 6) and fluctuate notably for the intellectual vs. realistic taste distinction, as birth cohort is not a significant predictor of this model (See Table 2-9).

To sum up, these results support *Hypothesis 2b* about the possibility of explaining cultural shifts in taste by demographic transformations in the socio-economic structure. This explanation is only partial. Even so, it shows that these shifts occurred independently of such changes, and they thus validate *Hypothesis 2a*. It appears that the two hypotheses may be better treated as complementary rather than alternative.

2.4.6 Discussion, conclusions and limitations

The last few decades have witnessed significant social, demographic, and economic changes that have ultimately reshaped individuals' cultural expressions and daily practices. This chapter touched on various issues that are crucial to the formation of taste and aimed to explain away the cultural taste differences across birth cohorts. Against this background, I tested two models on the importance of competing factors for explaining the differences in cultural preferences in Spain.

The first model, the structuralist one, explains differences in individuals' cultural preferences as a consequence of structural transformations in the class, educational, and rural/urban

composition of society. In contrast, the individualistic model explains these differences as due to personal (idiosyncratic) shifts in cultural preferences over time unassociated with the rise and fall of any specific groups in society and affecting all of them.

This empirical analysis, which is based on the exploitation of survey data, shows that Spaniards' cultural preferences can be distributed across three distinct cultural tastes—intellectual, realistic, and fictional. These tastes are well-rooted in class and educational differentiation. They provide support to the *structuralist argument* that cultural preferences, mainly expressed as a choice between highbrow (intellectual, ideational) and lowbrow (realistic) forms of cultural expression, rest on structural differentiations between the highly educated service class and the less-educated manual class. Differences between the fictional taste—the one more widely embraced by younger birth cohorts— and the other two tastes are also based on class and educational differentiation, but they are shallower, suggesting that cultural preferences may be becoming more socially heterogeneous—or individualistic—over time.

Indeed, the results of the multivariate analyses applied in this research show that the shift towards the fictional taste is only partly mediated by changes in the class, educational, and (less evidently) residency structures. The expansion of the highly educated and urban service class and the contraction of the less educated, rural, manual classes have contributed to the shift away from realistic forms of taste—stemming from more immediately pressing environmental factors—into more ideational and fictional forms of cultural expression characteristic of a more affluent society. The shift towards a fictional taste, however, occurred independently of these socio-demographic transformations, which highlights the role of agency or the capacity of individuals to modify their social constraints in the formation of cultural taste. It also points towards a convergence in taste and new forms of cultural expressions that of more fictional, perhaps driven by the standardization of cultural products promoted by the culture industry.

The basic stability of cultural preferences facilitates the interpretation of changes across birth cohorts in cultural preferences as an

expression of changes in a society's cultural values. Based on longitudinal studies, there is evidence to suggest that one's aesthetic disposition, which strongly relates to cultural taste, is relatively stable throughout individuals' lives (Friedman & Reeves, 2020). Phrased differently, the appreciation of distinct cultural genre/taste does not directly connect to the changes caused by the biological and social process of aging (Winship & Harding, 2008; Carlsson et al., 2014; Christin et al., 2016). In this chapter, I do not claim that cultural engagement levels are totally stable throughout individuals' lives. The degree of cultural participation might change, however, over the course of an individual's life due to age-related issues such as health or family responsibilities (Reeves, 2016). However, the results should be interpreted with caution as I cannot disentangle all age-cohort-period effects.

The future studies would benefit from integrating a comparative approach with other European countries. In that matters, countries like France, Germany, Italy, United Kingdom and Spain, which experienced very different socio-historical trajectories, remains insufficiently compared. Also, Future research might expand the khb's method using series of replicated surveys suitable for a quasi-panel approach which would allow us to disentangle age, cohort, and period effect in a better way than it is possible with cross-sectional data. The data exist for these kinds of comparisons that would be very fruitful for a better analytical comprehension of the process of cultural change.

Another limitation of this investigation is that the data on cultural preferences are based on the kind of broad categorizations that are often used in official statistics on culture. In other words, the measures of cultural preferences are rather crude, based on broad genre categories, such as series and comedy programs, movies, sports programs. Such a limitation is especially evident when it comes to data on music preferences. The employed categories, such as Jazz & Blues (that also includes Blues and Soul) and Urban (that includes Heavy Metal, Punk, Hip-Hop, Rap, Reggae, etc.), mix musical genres that have distinctly different groups of adherents. Some categories, such as classical music and Pop & Rock, are relatively broad and blurry. Therefore, one runs the risk of obscuring the fact that

sociologically significant taste distinctions exist within these sweeping genre categories (Atkinson, 2011). Due to the data limitation, I relied on the secondary analyses of survey data, as the data was not necessarily gathered for the identification of marking out a cultural distinction, audience groupings, or subculture analysis. Similarly, the variety of the ambits (T.V, music, and dressing style) to define cultural taste was limited due to the availability of data.

One limitation of this investigation is that it is based on data from 2006. Hence, it does not capture new forms of cultural differentiation based on internet use and preferences, which did not widespread until years later.[17] However, the three ambits selected to study Spaniards' trends in cultural consumption (T.V. viewing, music listening, and dressing styles) still occupy one of the central parts in their daily routines.

Another important issue that should be explored in the future is the extent to which culture expresses itself in the form of preferences for genres and tastes (as analyzed in this chapter) or in choices within genres (e.g., horror movies vs. dramas, indie bands vs. commercial pop, high vs. affordable fashion). Perhaps the shift towards the fictional genres hides important cultural differentiations that are rooted in socioeconomic structure. As Bourdieu wrote (1995, p. 112), "*the same taste might, in another state of supply, have been expressed in practices that are phenomenally quite different, but structurally equivalent."* Thus, we cannot be sure about whether the same cultural preferences are understood in similar ways across cohorts and countries.

From the fact that younger birth cohorts, including the best-educated, no longer consider "*high culture*" to be superior, I cannot conclude that class-related lifestyles will disappear. It is also possible that among the younger birth cohorts, new forms of distinction will

[17]In 2007, the percentage of Spaniards who could access the internet at home was about 47%, half of the percentage who had access to TVs or musical devices (INE 2007).

continue to emerge (e.g., within a pervasive popular culture or on digital video platforms like Netflix or YouTube). Indeed, I checked whether the clusters of taste derived from MCA are similar or the same for different birth cohorts (Not shown here). I found a possible intellectual taste among the younger birth cohorts where people prefer Debates, classical music, a Sober dressing style, and Jazz & Blues. Yet, I do not know to what extent the intellectual taste of young people differs from that of older people in terms of sub-genres; exploring this would require an in-depth dive into the topic.

Finally, it would be worth exploring in the future the coherence of individuals' cultural preferences. For simplicity, in this chapter, they were treated as coherent, although the fuzzy set techniques used to classify individuals allowed for estimating individuals' degree of "*membership*" in each taste. Future work should assess if consistency in cultural preferences is a function of the socioeconomic positions occupied in society. In this chapter, the taste membership score refers to individual's taste consistency level. The contexts of these preferences might contribute to integrating the recent debate on the omnivore (taste inconsistent) vs. univore (taste consistent) forms of cultural expression (Peterson, 2005) with the traditional analysis of cultural tastes. The following chapter touches on the concept of omnivority and tests how cultural preferences are transmitted within social networks and social connections as Spaniards' new generations move up and down the social structure as a consequence of the deep processes of socioeconomic transformations experience by the country.

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Table 2-1. Culture, genre, and taste formations of the structuralist and individualistic views.

Main Approach	*Genre Relation*	*Formation of Taste*	*Level of Taste*	*Role of Culture*
The *structuralist view*	Hierarchical	Distinct tastes	Social structures	Contributes to a group identity
The *individualistic view*	Horizontal	Multiple sub-cultural forms	Individual	Autonomous functions depending on social interactions

Table 2-2. Membership scores for *Jazz & Blues* and the final cluster to which it belongs.

Genre	*Taste 1*	*Taste 2*	*Taste 3*	*Final Cluster*
Jazz & Blues	0.08	0.10	0.82	Cluster 3

Table 2-3. Genre preferences of three arbitrary individuals—A, B, and C—and their corresponding tastes and membership scores.

	T.V.			Music			Dressing Style		
Respondent	*Genre*	*Cluster*	*Score**	*Genre*	*Cluster*	*Score*	*Genre*	*Cluster*	*Score*
A	Movie	Taste 3	0.65	Classic	Taste 1	0.61	Casual	Taste 2	0.67
B	Movie	Taste 3	0.65	Folk	Taste 2	0.78	Comfortable	Taste 2	0.36
C	Series	Taste 3	0.77	Urban	Taste 3	0.74	Fashionable	Taste 3	0.78

* Genre membership score in the cluster

Table 2-4. Sum of genre membership scores for individuals A, B, and C, and their genre preferences and final taste assignment and consistency scores.

Respondent	*Taste 1*	*Taste 2*	*Taste 3*	*Final Taste*	*Taste Consistency score**
A	0.61	0.67	0.65	Taste 2	0.1
B	0	1.14 (0.78+ 0.36)	0.67	Taste 2	0.55
C	0	0	2.29 (0.77+0.74+0.78)	Taste 3	1.0

Note: The membership (taste consistency) score for the final taste is between 0.38 and 0.81. For the sake of simplicity, it is normalized to a 0-1 range.

Figure 2-1. Tested models.

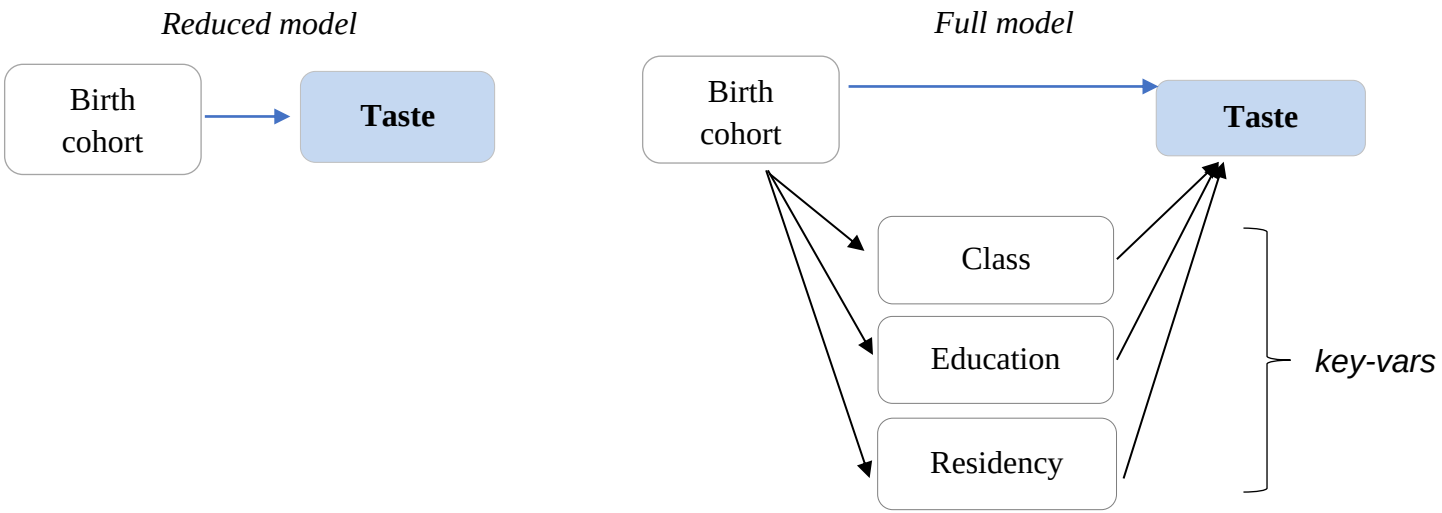


Table 2-5. Main preferences in T.V., music, and dressing styles.

T.V.		Music		Dressing Styles	
Genre	*Percentage*	*Genre*	*Percentage*	*Genre*	*Percentage*
Movies	24%	Pop & Rock	49%	Comfortable	46%
News	21%	Folk	17%	Casual	28%
Documentary	14%	Classic	12%	Fashionable	17%
Series	13%	Jazz & Blues	6%	Sober	6%
Sport	13%	Urban	5%	Trendy	2%
Debates	6%	Electronica	4%	Extravagant	1%
No T.V.	3%	Country	4%		
Contests	3%	No Music	3%		
Gossip	2%				
Soap opera	1%				
Reality shows	0.9%				
Other	0.1%				

Figure 2-2. Distribution of main music preferences by birth cohort.

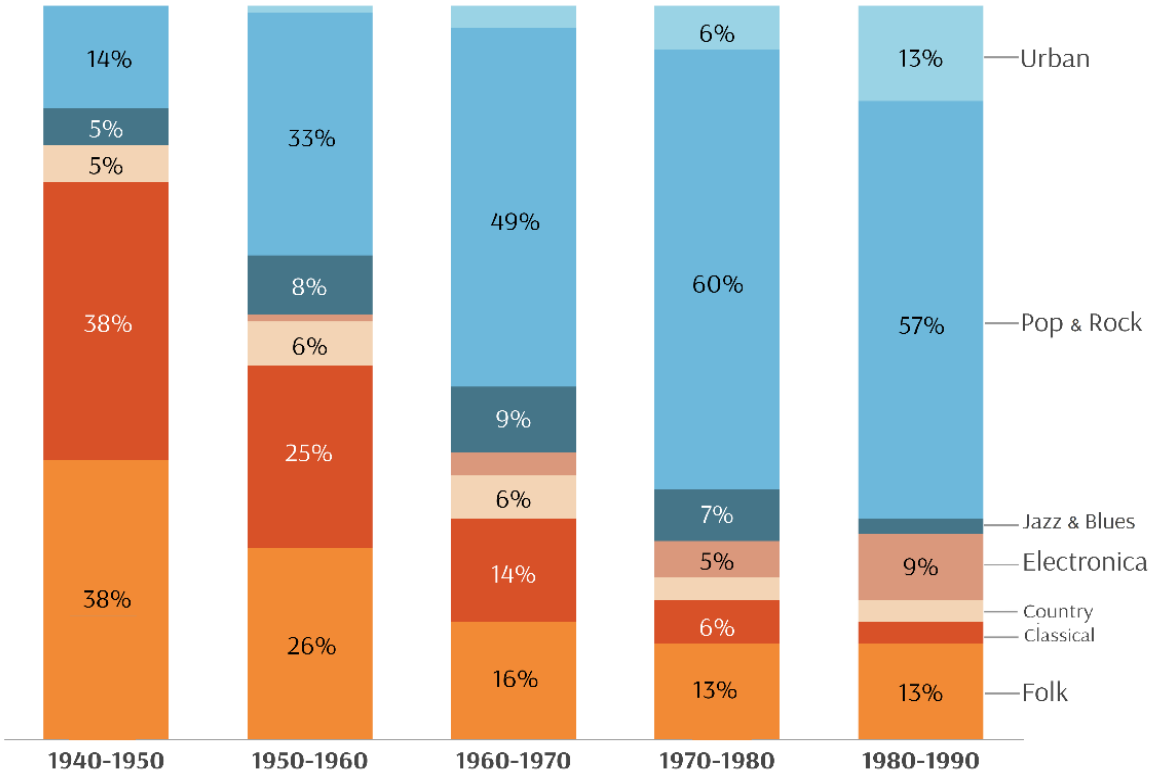


Figure 2-3. Distribution of main T.V. preferences by birth cohort.

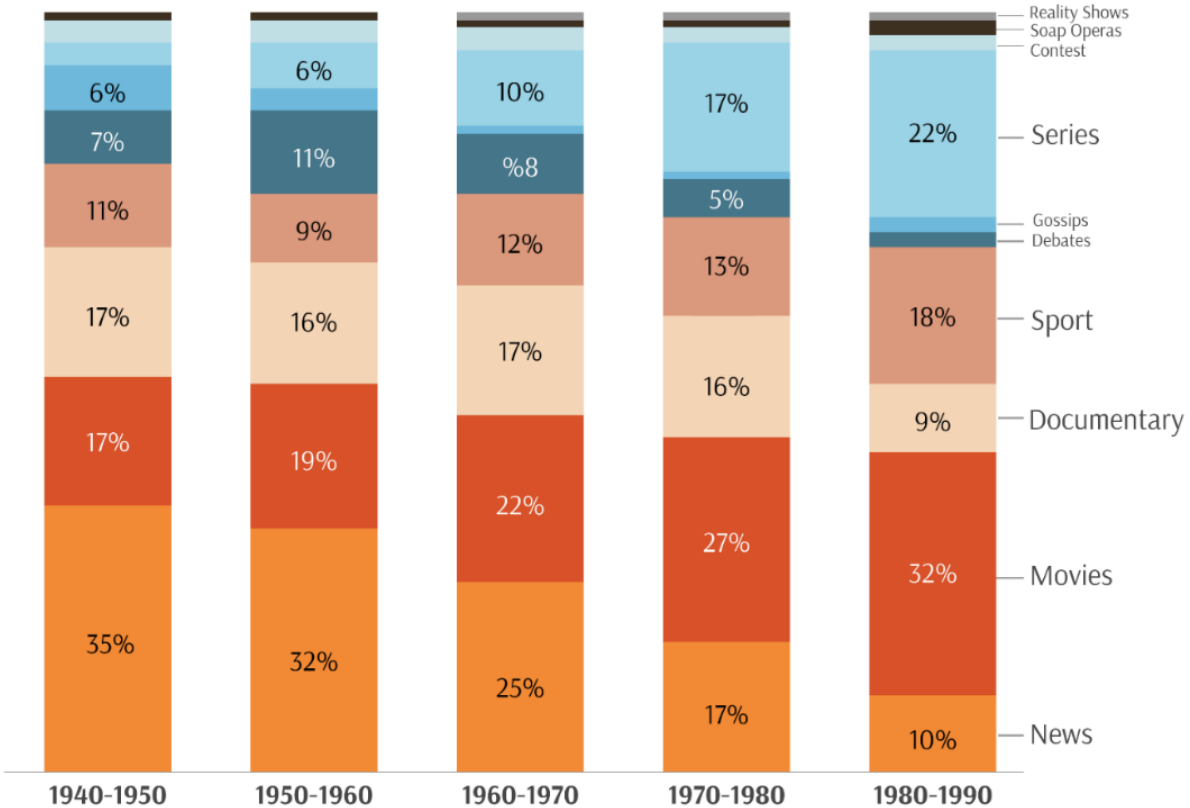


Figure 2-4. Distribution of main dressing style preferences by birth cohort.

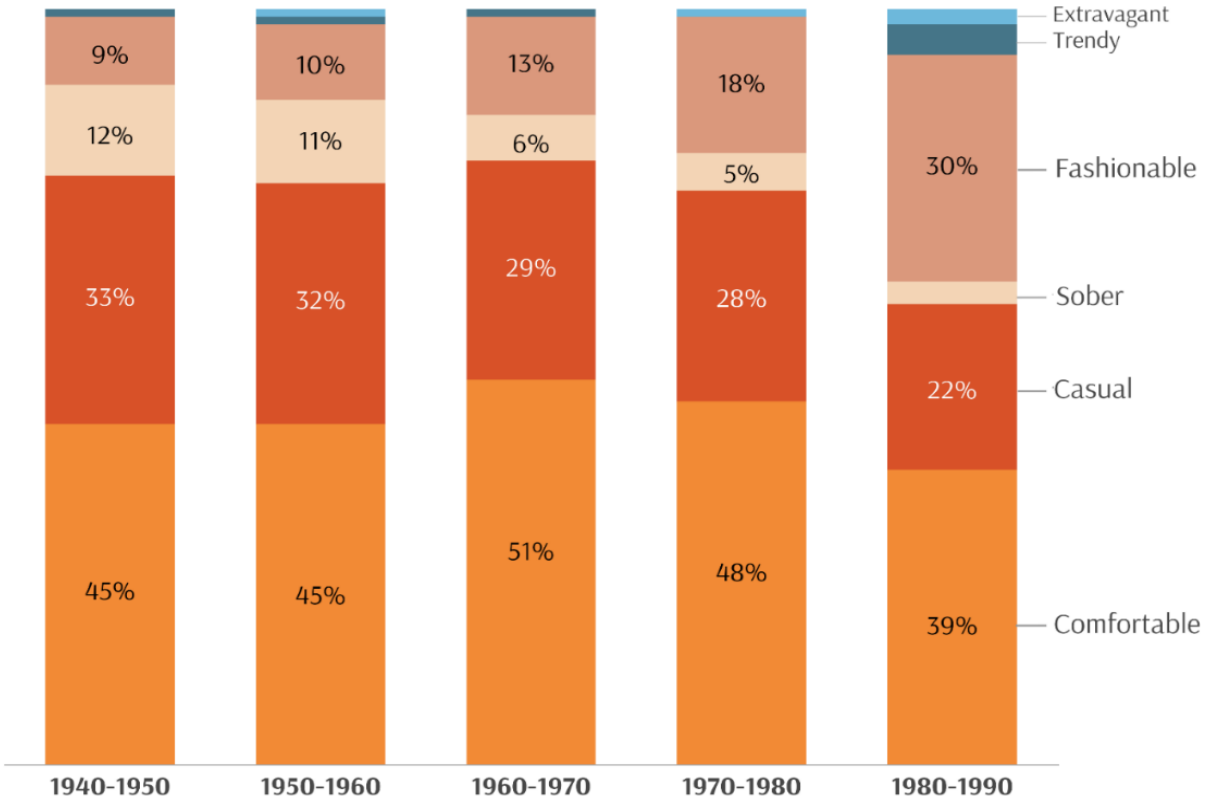
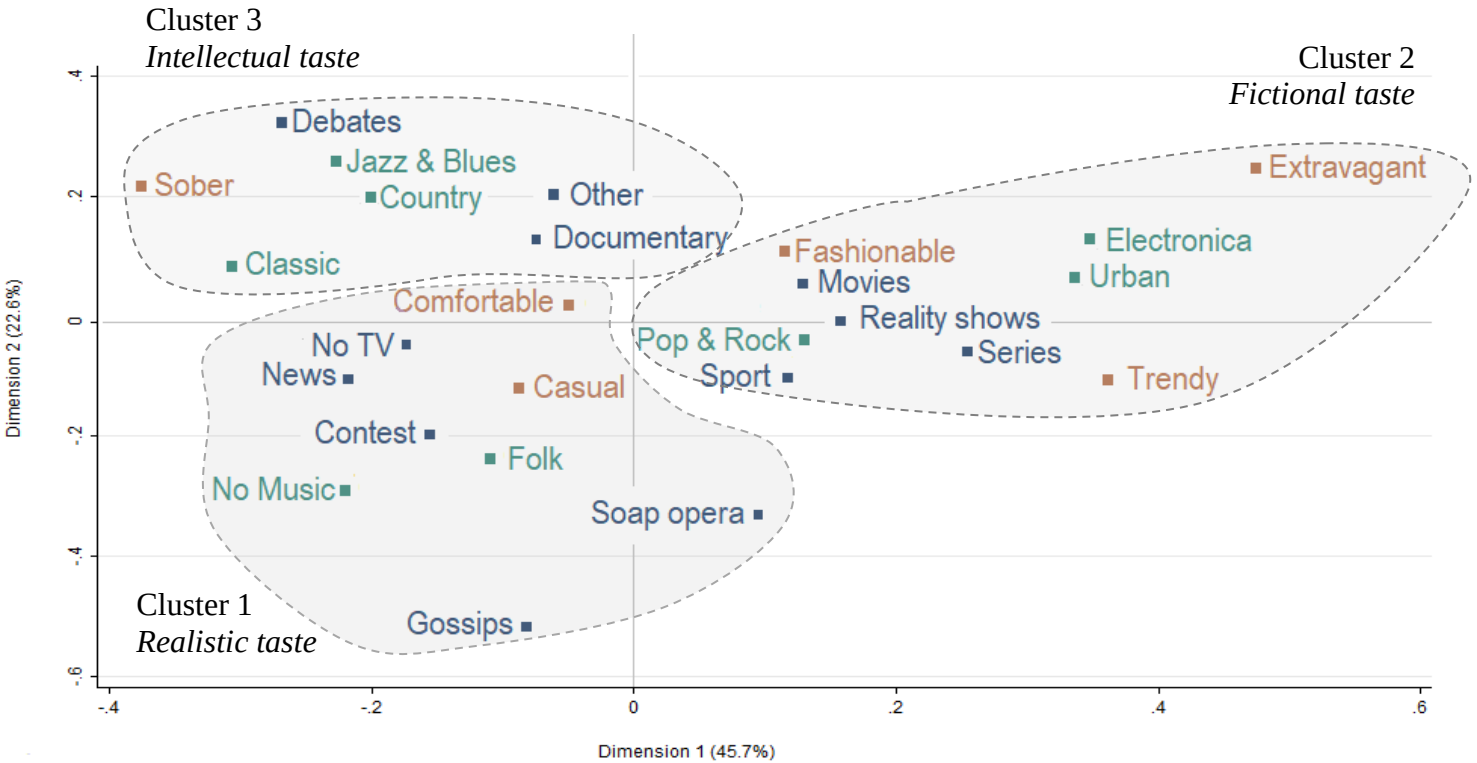


Table 2-6. Genre membership scores in each cluster.

Cluster 1 (Traditional taste)		Cluster 2 (Fictional taste)		Cluster 3 (Intellectual taste)	
Genres	*Cluster Membership*	*Genres*	*Cluster Membership*	*Genres*	*Cluster Membership*
Folk music	0.78	Fashionable	0.78	Jazz & Blues	0.82
Contest	0.78	Series	0.77	Classical music	0.81
Casual	0.67	Urban	0.74	Debates	0.70
No Music	0.67	Reality Shows	0.71	Sober	0.65
Gossip	0.53	Electronic	0.70	Documentaries	0.61
Soap opera	0.52	TV Movies	0.67	Other TV	0.59
News	0.47	Trendy	0.60	Country	0.49
No TV	0.42	Pop & Rock	0.60		
Comfortable	0.36	Extravagant	0.54		
		Sports	0.51		

Note: The minimum cluster membership score is 0, and the maximum score is 1. Higher scores indicate a higher level of contributions of the active categories to the space.

Figure 2-5. Two-dimensional cultural map of the genres and their corresponding tastes.



Note: Main preferences for T.V. are represented by dark blue, for music by green, and for dressing style by

Table 2-7. Distribution of tastes by independent and control variables.

	% in variable	*Fictional Taste*	*Realistic Taste*	*Intellectual Taste*
% in taste		**41%**	**21%**	**38%**
Birth cohort				
1940-1950	6%	5%	63%	32%
1940-1950	17%	15%	54%	31%
1960-1970	27%	35%	40%	25%
1970-1980	31%	51%	31%	17%
1980-1990	19%	71%	20%	9%
Social Class				
Service Class	25%	43%	27%	31%
Routine Non-Manual Workers	25%	47%	31%	21%
Petit Bourgeoisie	11%	31%	49%	20%
Skilled Workers	17%	45%	40%	16%
. Non- Skilled Workers	17%	39%	46%	15%
Farmers & Farm Laborers	4%	34%	58%	8%

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Education				
Graduate or more	17%	40%	27%	33%
Primary or less	11%	21%	64%	15%
Taste Consistency score		0.36	0.43	0.45
Marital Status				
Married	55%	32%	44%	24%
Single	39%	57%	27%	16%
Divorced	5%	34%	38%	28%
Widowed	1%	15%	71%	14%
Gender				
Female	41%	44%	35%	21%
Male	59%	40%	38%	21%
Number of children				
0	43%	56%	26%	17%
1 or more	57%	30%	46%	24%
Area of Residency				
Urban	63%	43%	36%	21%
Rural	37%	39%	40%	21%

Table 2-8. Multinomial logistic regression for all tastes.

	(1) Intellectual Taste / Realistic Taste (Base)		*(2) Fictional Taste / Intellectual Taste (Base)*		*(3) Fictional Taste / Realistic Taste (Base)*	
	ˆβ	s.e.	ˆβ	s.e.	ˆβ	s.e.
Birth cohort						
(Ref: 1940-1950)						
1950-1960	0.03	(0.32)	0.80*	(2.27)	0.62*	(2.60)
1960-1970	-0.09	(-0.25)	1.57***	(5.04)	1.41***	(5.16)
1970-1980	-0.46	(-1.82)	2.01***	(7.28)	2.19***	(6.51)
1980-1990	-0.57	(-1.91)	2.54***	(8.58)	2.94***	(7.80)
Social Class (Ref: Service)						
Routine Non-Manual Workers	-0.19	(-1.10)	0.03	(0.50)	-0.16	(-0.74)
Petit Bourgeoisie	-0.48*	(-2.30)	0.13	(0.68)	-0.36	(-1.70)
Skilled Workers	-0.66**	(-3.22)	0.36*	(2.22)	-0.29	(-1.15)
Unskilled Manual Workers	-0.67***	(-3.31)	0.18	(1.16)	-0.48**	(-2.44)
Farmers & Farm Laborers	-1.46***	(-3.76)	1.10**	(2.91)	-0.26*	(-0.98)

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Education Level						
(Ref: Graduate or more)						
College	-0.30	(1.58)	0.36*	(2.18)	-0.05	(0.54)
High School	-0.39***	(5.07)	0.50**	(2.72)	-0.01	(0.69)
Secondary	-0.93***	(4.82)	0.70***	(3.55)	-0.35	(-1.15)
Primary or less	-1.45***	(2.20)	0.84**	(3.05)	-0.71**	(-2.58)
Taste Consistency Score	-0.60***	(-3.5)	2.78***	(12.0)	3.34***	(-6.11)
Residency (Ref: Urban)						
Rural	0.15	(-1.34)	-0.30**	(-2.76)	-0.13	(-1.70)
Gender (Ref: Male)						
Female	-0.13	(-1.22)	0.06	(1.87)	-0.50	(-2.97)
Children (Ref: 0)						
1 or more	-0.18	(-1.08)	-0.35	(-1.04)	-0.54*	(-2.42)
Marital Status (Ref: Single)						
Married	-0.05	(0.02)	-0.03	(-0.18)	-0.09	(-0.59)
Divorced	0.01	(-1.25)	0.09	(0.35)	0.10	(0.42)
Widowed	-0.81	(-2.58)	1.04	(1.46)	0.22	(0.41)
Intercept	0.52*	(2.86)	-2.28***	(-5.59)	-2.80***	(-3.59)
Pseudo-R2	0.16					
N	2955					

Table 2-9. Decompositions of the direct and indirect effects of birth cohort on tastes using the khb method.

				Confounding		Decomposition of Difference		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Birth cohort (Ref: 1940-1950)	*Reduced Model (Total Effect)*	*Full Model (Direct Effect)*	*Difference (Indirect Effect)*	*Ratio*	*Total Indirect Effect*	*Class*	*Education*	*Residency*
Fictional Taste vs. Intellectual Taste (Base)								
1950-1960	0.80*	0.70*	-0.10	1.1	-11%	-3%	-8%	0%
1960-1970	1.57***	1.39**	-0.18**	1.1	-11%	-2%	-10%	0%
1970-1980	2.01***	1.81***	-0.20**	1.1	-10%	-1%	-8%	0%
1980-1990	2.54***	2.48***	-0.06	1.0	-3%	0%	-3%	0%
Fictional Taste vs. Realistic Taste (Base)								
1950-1960	0.62***	0.56***	-0.06	0.9	-9%	-3%	-10%	4%
1960-1970	1.41**	1.25**	-0.16**	0.9	-13%	-2%	-12%	1%
1970-1980	2.19***	2.00***	-0.19**	0.9	-10%	-2%	-8%	0%
1980-1990	2.94***	2.88***	-0.06	0.9	-2%	0%	-2%	0%

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Intellectual Taste vs. Realistic Taste (Base)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1950-1960	0.22	0.08	0.14	2.7	62%	14%	54%	-4%
1960-1970	0.32	-0.01	0.33**	-1.7	75%	17%	60%	-2%
1970-1980	0.01	-0.38	0.46**	-0.1	85%	30%	30%	-25%
1980-1990	-0.34	-0.45	0.11	0.7	-35%	-2%	-38%	-1%

3 CULTURAL OMNIVORES: PATTERNS OF LEISURE ACTIVITIES IN SPAIN

Abstract

This chapter, which provides a novel contribution to the existing literature on sociological change, explores the dynamics of leisure activities in Spain. It analyzes the effects of cultural change with respect to cultural omnivority on all social strata and younger people in particular. I investigate the mediating roles of social class, cognitive class, and social networks in shaping birth cohort differences in cultural omnivority. Survey data (N = 2,057) from a random sample of the Spanish population reveals that younger, upper-class people with a higher level of cognitive ability and heterogeneous network scores tend to have higher omnivority scores. Furthermore, the results show that birth cohort differences in omnivority significantly decrease with rising cognitive abilities and expanding heterogeneous networks. In addition, having a mixed network of social contacts and higher cognitive ability mediates the class effect on omnivority. Lastly, social class does not explain much of the birth cohort differences in omnivority caused by compositional changes in class structure.

3.1 Introduction

Bourdieu, in his revolutionary monograph Distinction, presents one of the first conceptualizations of the hierarchical relationships between class and cultural activities (Veblen, 1967; Bourdieu, 1984; Coulangeon, 2005). The *homology argument* has been proposed as part of a theoretical framework that stresses the interdependence of individuals' resources (Bourdieu, 1984; Peterson & Simkus, 1992). In this view, social classes result from the combined effect of individuals' resources or capital forms—economic, cultural, and social—, which are inter-correlated, and of people's temporarily held positions, which depend on the level and composition of their capital but also on contingent factors. Building on his *homology argument*, aesthetic appreciation can be categorized into two opposing poles. The top pole comprises the upper class, which tends to embrace a highbrow taste; the bottom pole of the social hierarchy, meanwhile, comprises the lower class, individuals who are primarily inclined towards popular culture experiences and disinterested in formalized cultural activities (Gans, 1974; Levine, 1988; Peterson & Simkus, 1992).

Less than a decade after this conceptualization, Peterson and his colleagues challenged Bourdieu's view, citing a cardinal difference in attitude toward pop culture among members of the upper-class in the United States (Peterson, 1992; Peterson & Simkus, 1992; Peterson & Kern, 1996). Their studies show that the upper classes tend to follow a pattern of eclectic or omnivorous musical consumption rather than a solely highbrow aesthetic. Further research empirically supported this argument suggesting that the culturally eclectic taste of people in the upper strata was likewise a common trend among many other countries and various cultural domains in addition to music. The *social class argument* is the *homology hypothesis* proposed by Peterson, which has become quite popular thereafter (for a review, see Peterson 2005).

Peterson and his colleagues developed the concept of omnivority[18] to generalize their empirical results. However, these results did not wholly explain such a pronounced shift in cultural tastes. According to Peterson and Kern (1996), increased tolerance towards people who hold different values, the commercialization of culture, and general politics in society have contributed to the formation of cultural omnivority. Peterson (2005) conceives of omnivority as a historical trend affecting all levels of society albeit younger and upper-class people in particular, triggered by the prominence of commercialized culture in developed countries like the United States.

Despite a growing body of research, the literature on this topic lacks a mechanism-based approach to understanding the formation of omnivority and its ties to cultural change, social class, cognitive abilities, and heterogeneous networks. Therefore, this study targets the role of social change in cultural change-bounded relations by first describing the link between birth cohort and omnivority. A conceptual framework is then developed to understand how class and opportunities explain birth cohort differences on the omnivority level. To do so, I build upon multiple strands of research, ascertaining which of the following proxies of socio-cultural change play a mediating role on birth cohort differences in omnivority: social class, cognitive abilities (education), and heterogeneous social networks.

[18]Using surveys conducted in 1983 and 1992 in the United States, Peterson and Simkus (1992) reported that people in the upper class had developed an eclectic musical taste over time, expanding their cultural preferences to encompass not just their traditional preferences such as classical music and opera but also the genres like pop music and folk music. To define this group's increased cultural participation, they coined the term "*cultural omnivore.*" This contrasts with the "*cultural univority*" of the lower classes, whose preferences are rather homogenous due to their aesthetic indisposition towards a variety of cultural activities (Peterson 1992; Peterson & Kern 1996). Note that, the *homology argument* is based on three effects working dimulatenously: the distinction effect, the boundary-effacement effect, and the omnivore effect (Holbrook, et al., 2002; López-Sintas & García Álvarez, 2005).

3.2 Theoretical framework

3.2.1 The emergence of omnivority

Research on how the omnivore cultural pattern emerged diverges into four views. First, the *cultural change argument* asserts that shifts in values, the fluidity of individuals' preferences, and developments in the culture industry have driven the emergence of an eclectic taste.

Proponents of this view also argue that such cultural change does not spread through all birth cohorts. Rather, younger people are first and more frequently exposed to these changes during the period of early socialization (Bennett et al., 2008; Lahire, 2008; Scherger, 2009). Thus, cohorts play an exogenous role in shaping differences in the level of omnivority.

The *social class argument* (i.e., the *homology argument*) asserts that the openness of the upper class to other cultures is a primary explanation for the emergence of omnivority. Proponents of this view also highlight the mediating role of class in the birth cohort-omnivority relationship by arguing that the expanding service industry changed the demographic composition of the class structure. Thus, the cultural preferences of people in the upper strata comprise mixed cultural choices, which ultimately has given rise to increased (aggregated) omnivority (Bryson, 1996; Van Eijck, 1999; Rees et al., 1999; López-Sintas & García-Álvarez, 2002, 2004; Chan, 2010).

The *opportunities argument* cites the role of increasing public education (cognitive abilities) and heterogenous networks—which arise due to higher social and geographical mobility, and a multicultural social context—in the explaining the differences in omnivore cultural patterns (Giddens, 1991; Feathersone, 1992; Fernández Mellizo-Soto, 2001; Ferrant, 2018).

The fourth view, the *joint argument*—which combines the social class and the *opportunities argument*— argues: (1) that class may have a mediating effect of on the impact of cultural change on omnivority, which in turn is mediated by cognitive abilities (education) and heterogeneous networks; (2) that the impact of cognitive abilities and heterogeneous networks on the relationship

between cultural change and omnivority may be mediated by class. Thus, the *joint argument* revolves around a discourse of the complex relationship between social class, cognitive abilities, and heterogeneous networks.

Herein, I detail how these contrasting arguments explain the expansion of an omnivore cultural pattern.

3.2.2 The cultural change argument

Inglehart's "*cultural shift"* (1990) brought a unique story to the fore, one which focuses on the historical shifts in values from the materialist to the post-materialistic. In the past, small, separate communities sustained an internally consistent cultural appreciation of materialism. Today, however, loosely interconnected individuals engage in a multiplicity of social interactions within a complex social system, enjoying inconsistent and more tolerant cultural preferences (Bell, 1973; Abramson & Inglehart, 1986; Inglehart, 1990).

Postmodern scholars who adopt this perspective argue that urbanization, individualism, and globalization are the leading factors motivating people to try new and unfamiliar activities (Beck & Beck-Gernsheim, 2002; Featherstone, 2007; Ocejo, 2012; Paton, 2014).

With the rise of self-realization and post-materialistic values—which are often synonymous with the lifestyle of young adults—the symbolic borders of any structural homology have been attenuated (Emmison, 2003; Canclini, 2004). Thus, people now enjoy the freedom of forming their own diverse cultural preferences and of advocating for equal standing of all preferences; this consequently has resulted in the emergence of omnivority (Sullivan & Katz-Gerro, 2007; Lizardo & Skiles, 2012).

Some scholars also contend that the dynamic change inspired by new technological developments, cultural policies, and mass production has played a significant role in the democratization of access to cultural goods and has increased the leisure time of people in all social strata (Fishman & Lizardo, 2013; Gershuny, 2000; Sullivan & Gershuny, 2018). The commercialization of culture challenged a single standard narrative in the art world, with mass media providing

its audience with an increasing number of cultural activities, thereby playing a role in the democratization of access to cultural genres (Johnston & Baumann, 2007; Gans, 2012).[19] Thus, widespread access to limitless cultural activities ultimately created an omnivorous pattern across all strata.

Lastly, according to this argument, young people have mostly embraced socio-cultural changes like the commercialization of culture and the diffusion of individualistic ideas. Lizardo and Skiles (2012) highlight a cross-generational distinction mechanism, proposing that young birth cohorts distinguish themselves from older people by expressing an omnivorous taste. Thus, young people, regardless of their social position in society, are more likely than their older counterparts to appreciate emerging cultural forms; this has occasioned a wide range of cultural tastes becoming applauded or considered socially appropriate norms in their generation (Ollivier, 2008).

Recent research confirms that young people are more likely to be cultural omnivores (Friedman et al., 2015; Reeves & De Vries, 2016) and less likely to follow highbrow cultural patterns than older people (Van Eijck & Knults, 2005; Reeves, 2014). Therefore, this view sees recent socio-cultural changes as having had a more significant impact on younger people than on their older counterparts. In brief, the *cultural change argument* asserts that a confluence of factors, such as the spread of communication channels, globalized and individualistic ideas, and the growing culture industry has played a pivotal role in the emergence of omnivority.

3.2.3 The social class argument

The *cultural change argument* considers cultural changes as having to affect all social strata and younger people in particular. Peterson and Kern (1996), on the other hand, retort that such cultural changes

[19]See Adorno's and the Frankfurt School's studies for earlier insights and critiques on the effects of mass production of culture on aesthetic values and people (Adorno & Horkheimer, 2002).

have been adapted solely by the upper-class. In their very first explorations of omnivority, Peterson and Kern (1996, p. 905) suggested that cultural change fostered "*an openness to appreciating everything*" among those in the upper strata, rather than an exclusively highbrow taste Phrased differently, the openness of the upper class to unfamiliar forms of culture is considered a primary explanation for the emergence of omnivority (Peterson & Simkus, 1992; Van Eijck, 2000; Peterson, 2005).[20] Additionally, Koppman (2015) argues that participating in a broader range of cultural practices has become instrumental in today's multicultural and creative job market. Scholars also highlight that individuals in the upper class, who are strengthened by higher economic resources and more leisure time, invest more in varied cultural activities than people with low socioeconomic status (Danielle, 2004; Cebula, 2015). These factors have consequently resulted in people from privileged backgrounds demonstrating omnivorous cultural patterns.

Peterson and his colleagues present another argument claiming that a compositional change in the class structure had increased omnivority That is, the upper and middle classes have expanded at the expense of the lower class, due to increased demand for products with high added value (favoring expansion of higher classes) and automation of manual activities (favoring constriction of the lower class). Drawing on this position, they, therefore, argue that young upper-class people working in the international, dynamic environment of the expanded industries embrace a variety of cultural tastes, resulting in a relatively high level of cultural omnivority (Peterson & Simkus, 2002; Peterson, 2005). In other words, the heterogeneous composition of the upper class—whose members come from different social backgrounds—and their embrace of various cultural preferences might result in an increased omnivority at the aggregate (class) level, rather than at the individual level (Van Eijck, 1999;

[20]It refutes the idea that only individuals in the upper class embraced an openness towards different cultures.

DiMaggio & Mukhtar, 2004; Van Eijck & Knulst, 2005; Warde et al., 2007; Warde & Gayo-Cal, 2009; Coulangeon, 2013).[21]

In line with this school of thought, current research has confirmed the emergence of an omnivore cultural pattern among people in the upper class inspired by socio-cultural changes and demographic trends (Peterson & Kern, 1996; Emmison, 2003; Ollivier, 2008; Savage & Gayo-Cal, 2011; Chan & Turner, 2017). Thus, the *social class argument* mirrors the structural inequalities of people's cultural lifestyles (e.g., the univore taste of the lower classes versus the omnivore taste of the upper classes).

3.2.4 The opportunities argument

A wealth of research has expanded the debate by highlighting the role of recent social changes, such as increased public education and the impact of social and geographical mobility on the breadth of cultural preferences across all classes (Warde & Gayo-Cal, 2009; Karademir Hazır & Warde, 2016; Coulangeon, 2017). Similarly, DiMaggio (1991, p. 144) specifies the expansive contribution of social change to omnive cultural patterns by linking it to the rise of "*a large, well-educated, geographically mobile upper-middle-class, with attenuated ties to place and complex role structure that facilitate and reward participation in multiple cultural traditions*."

Thus, the *opportunity argument* surmises that the effect of cultural change on omnivority is partly mediated by changes in cognitive abilities/education and heterogeneous networks (net of class). Herein, I summarize how these two factors, cognitive ability, and heterogeneous networks, are associated with omnivority and how they consequently explain the differences in cultural omnivorit levels.

[21]However, it stands in contrast to Bourdieu's concept of *homology* by claiming that an eclectic taste might lead to a new *distinction* among people in the upper strata, and thus proposes a unique class-based taste structure (Peterson & Simkus, 1992; Coulangeon & Lemel 2007).

a. Cognitive abilities

The *cognitive ability view* highlights the role of education in broadening an individual's range of cultural activities. Neisser et al. (1995, p. 77) define cognitive ability as a way "*to understand complex ideas, to adapt effectively to the environment, to learn from experience, to engage in various forms of reasoning*." Thus, cognitive ability plays a substantial role in the formation of omnivority (e.g., internalizing unfamiliar cultural expressions), since the appreciation of distinct codes and symbols embedded in cultural activities requires a certain level of cognitive skills (Kingston et al., 2003; Kaufman & Gabler, 2004; Peterson, 2005; Lizardo & Skiles, 2015).

Numerous studies have revealed that cognitive ability is primarily acquired through formal education (Bourdieu & Passeron, 1973; Banks & Mazzona, 2012; Carlsson et al., 2015; Chan & Turner, 2017). The formative years of education are essential to acquiring shared symbols and cultural cues, as well as acquiring intellectual skills (Heckman et al., 2006; Falch & Massih, 2011). Hence, the number of years in school leads to varying levels of information processing capacity and corresponding degrees of cognitive ability, both of which ultimately shape one's aesthetic disposition towards cultural activities. Some scholars also highlight the role of socialization, as expressed in contact with teachers and others (i.e., discussions about art, music, or T.V. programs watched among a circle of friends at school), in experiencing a variety of cultural repertoires (DiMaggio, 1991; Fiorini & Keane, 2014).

Many scholars endorse increasing access to public education as an equalizer of class-based cognitive inequalities (Coleman, 1988; Fernández Mellizo-Soto, 2001; Heckman et al., 2006). Therefore, this view emphasizes the strong potential of formal education as a resource for improving an individual's capacity for aesthetic adaptation (Anger, 2012; Bukodi et al., 2019). Due to increased access to higher education over the past decades, especially among the younger population, formal education has played a pivotal role as a "*great equalizer in a democratic society, and if people are not given access to quality education, then what we are doing is creating an*

underclass of people who will challenge our very way of life" (Gonzalez, 2012, p. 2).

b. Heterogeneous networks

The *heterogeneous network view* focuses on social experiences such as social mobility and network dynamics and links changes in cultural preferences to higher geographical dispersion and social mobility (i.e., increased opportunities to move between locations and contribute to societal growth, without any change in the distribution of destinations). According to this view, people construct different social connections (weak ties), which ultimately fuel their development of an omnivorous cultural consumption pattern. Lahire (2008) argues that people who experience multiple socialization tend to have a social network with many weak ties and greater exposure to highly diverse cultural exchanges. He claims, "[*An] important part of the variety of practices is explicable as much by the diversity of contexts, conditions and reasons in/for which consumers are driven to act as by personal eclecticism*" (Lahire, 2006, p. 257). Phrased differently, an individual's diversified social experiences drive the formation of mixed cultural preferences.

Social mobility is one of the prominent experiences resulting in a comprehensive array of unfamiliar social connections (Sorokin, 1927; Erickson & Goldthorpe, 1992; Warde & Tampubolon, 2002; Breen, 2004; Lahire, 2006; Friedman, 2012). Because socially mobile people are exposed to multiple socialization processes, unlike their immobile counterparts, they are more likely to possess a heterogeneous social network and a higher level of weak ties (Coulangeon, 2005; Scherger & Savage, 2010). Furthermore, people with higher social mobility adhere to the culture of the social position in which they were raised and internalize the culture of the destination environments. Eventually, living within diverse social contexts leads to an omnivorous cultural consumption pattern (Peterson, 1992; Bennett et al., 2008; Lahire, 2008). This explains the position of some scholars that increased social mobility in recent years, particularly upward social mobility among younger people, has primarily driven cultural eclecticism (Breen, 2004; Daenekindt & Roose, 2013a; Friedman et al., 2015).

In line with Lahire's perspective, other scholars have furthered the debate by considering how personal connections influence the formation of omnivority. They highlight the role of the diversity of network ties and the diffusion of cultural preferences from different communities (Simmel, 1949; Van Eijck, 2000; Molotch, 2002; Featherstone, 2007; Skrbis & Woodward, 2007; Maloutas & Fujita, 2012; Cutts & Widdop, 2017). For instance, individuals, especially younger people, who experienced a high level of geographical mobility (i.e., living far from their core communities) and spend their leisure time with their weak ties tend to live in mixed and inconsistent social contexts. And this, in turn, increases their expression of a diversified library of cultural knowledge and complex network ties (Saito, 2011; Prieur & Savage, 2013). While core communities (strong ties) mostly diffuse similar and consistent cultural practices to their members, weak ties introduce individuals to new, fluid, incoherent, and complex social contexts (Granovetter, 1973; Putnam, 1995; Lin, 2000). Therefore, being an omnivore is presumably a result of having mixed social ties.

3.2.5 The joint argument

Scholars have shown that the effects of formal education and cognitive skills in shaping omnivorous cultural patterns are strongly associated with social class, and the changes in class structure are partly derived from the changes in cognitive abilities across birth cohorts (Coleman, 1988; Gartman, 1991; Bradley & Corwyn, 2002; Griswold, 2004). Thus, it is reasonable to conceive that part of the class differences on omnivority are explained by differences in cognitive abilities across birth cohorts. Furthermore, a partial effect of cognitive ability on omnivority can be explained by class achievements, as seen in an individual's attainment of a master's degree from working a salaried job or attending a cultural or educational training leveraging entitled social positions (Anger, 2012; Fiorini & Keane, 2014).

Similarly, some scholars have argued that increasingly heterogeneous networks (social and geographical mobility) have affected class composition. They posit that the upper class has significantly expanded over the past few decades due to recent opportunities stemming from increased upward social mobility and

geographical mobility (e.g., living far from core networks due to recent social changes such as globalization or urbanization). Thus, the effect of social class on omnivority is partly mediated by heterogeneous networks. Other scholars have focused on the role of compositional changes in class structure across birth cohorts, such as the expansion of middle and upper classes, on increasing geographical mobility (i.e., securing better jobs and moving to locations far from core networks) and access to weak ties (Burt, 2001; Lin, 2001). The effect of heterogeneous networks is thus partly explained by changes in social class composition (Emirbayer & Goodwin, 1994; Lin, 2001; Hanquinet & Savage, 2016).

3.3 Research Design

3.3.1 Hypotheses

In this chapter, I consider social change (as captured by birth cohort) as the exogenous cause of omnivority. I aim to explain its effects by factoring in changes in class structure, heterogeneous networks, and cognitive abilities. Therefore, I test to what extent birth cohort, class, cognitive abilities, and network heterogeneity independently affect omnivority, and also see how a birth cohort effect can be explained away by these factors (or a part thereof). To achieve these objectives, the following hypotheses were tested, one for each of the arguments discussed above; each hypothesis could be alternative or complementary to the others.

The net effect of cohort on omnivority after considering the aforementioned factors (social class, cognitive abilities, and heterogeneous networks) constitutes my first hypothesis, on the causes of the increase in omnivority and associated changes in values towards post-modernity running across all segments of the population. I, therefore, hypothesize the following:

Hypothesis 1: Birth cohort has a net effect on omnivority.

The *social class argument* sees the effects of social change on omnivority as partly mediated by social class in two ways. First, the class structure has remained the same over time, but social change has led to an enhanced reception among the upper classes to

unfamiliar cultural expressions, resulting in increased omnivority among the upper strata (independent effect). Second, the compositional changes in class structure have led to an increased level of omnivority at the upper strata as the proportions of younger people—who tend to be more omnivorous than older people—in the upper classes have expanded over time. Thus, I expect to find class-bounded omnivority, where part of birth cohort effects disappears after controlling for class. This yields the following predictions:

Hypothesis 2a: Upper-class individuals have a higher level of cultural omnivority than the rest of the social strata, as a way to distinguish themselves from the other classes (the homology argument).

Hypothesis 2b: Class (partly) mediates the effect of birth cohort on omnivority.

The *opportunities argument* highlights the positive effects of cognitive ability on cultural omnivority as education breaks down cognitive barriers stalling the appreciation of distinct artistic expressions (independent effect). I also expect that formal education increases people's understanding of different cultural schemas; furthermore, younger people tend to be more educated than older people, thus leading to a high degree of birth cohort differences.

Also, the positive effect of different social networks on cultural omnivority is expected to be substantial because weak ties break people's social isolation and connect them to diverse cultural expressions (independent effect). As younger people possess more heterogeneous social networks (weaker ties resulting from a higher level of social and geographical mobility), they tend to be more familiar with broader cultural expressions. Thus, I expect to see part, or all of the effects of birth cohort disappear after controlling the base model for cognitive ability and network heterogeneity. The *opportunity argument* expands the *social class argument*, adding two mediating indicators of cultural (cognitive ability or education) and social capital (heterogeneous networks) to the analyses. Based on the arguments outlined above, the following empirical hypotheses are postulated:

Hypothesis 3a: People who have a higher level of heterogeneous networks and cognitive ability tend to have a higher level of cultural omnivority.

Hypothesis 3b: Social heterogeneity (partly) mediates the effect of birth cohort on omnivority.

In the last argument, I aim to model the relationships between omnivority, cognitive abilities, and heterogeneous networks as one of association, where class sometimes acts as the mechanism mediating the relationship between education-driven heterogeneous networks and omnivority, and where cognitive abilities and heterogeneous networks sometimes act as the mechanisms mediating the relationship between class and omnivority. Thus, I consider the joint mediating role of class on the one hand, and cognitive abilities and heterogeneous on the other hand. The related hypothesis is as follows:

Hypothesis 4: Both social class and opportunities, and their association, (partly) mediate the effect of birth cohort on omnivority.

3.3.2 Data & Methods

To test the hypotheses, I used Barómetro3179, a survey conducted in 2017 by the Centro de Investigaciones Sociológicas (CIS). The survey is representative of the Spanish population aged 18–78, (N = 2,057). Spain has experienced rapid democratic transitions and economic growth resulting in mass urbanization, educational expansion, and structural changes after the 1960s (Torcal & Montero, 2000; Fishman & Lizardo, 2013). The novelty of Spain's swift modernization and changes in class and education might prove useful for testing hypotheses about the relationship between class, social change, and omnivority.

In this chapter, I aimed to test four arguments explaining the relationship between birth cohort, social class, cognitive abilities, heterogeneous networks, and cultural omnivority. To do so, a cultural omnivority score was created to capture the diversity of cultural consumption. I then illustrated the socio-demographic characteristics of cultural omnivority and activities in Spain and analyzed which of

the views presented above best explain the relationship between class and social change in determining the level of cultural omnivority. Lastly, I included the population size of the place of residency (recoded into five categories), sex (coded 1 for women), and life stage variables such as marital status (recoded into three categories: single, married, and divorced/widowed) as controls. Prior research indicates that living in populated cosmopolitan areas, being a man, and being single are positively related to the level of omnivority (Bihagen & Katz-Gerro, 2000; Peterson, 2005).

a. Dependent variable

In the literature, omnivority level is calculated by using the composition of genre preferences (i.e., the extent to which a person blends highbrow and low brow genres) or by using the cultural appetite level for all genres (i.e., a volume of appreciation/aversion) (Peterson, 2005). Karademir Hazır and Warde (2016) analyzed articles on omnivority published between 1992 and 2013 and found that half of these articles measured omnivority using participation in cultural activities, with 25% examining the diversity of cultural taste, and over 20% somehow combining both participation and cultural taste.

In this chapter, the second definition of omnivority, which captures an individual's degree of cultural participation, is adopted, as the survey used touches on a wide variety of cultural activities. Many researchers adopting this perspective consider a respondent who participates in more than the average number of cultural activities as an omnivore (Karademir Hazır & Warde, 2016). However, this construction ignores the spatial relationships among cultural participation variables (i.e., the fact that some activities are more similar to other activities, while others are more distinct). To avoid this caveat, I used factor analysis, which helped me explore associations among set variables by measuring participation and determining the number of factors accounting for much of their similarity. To obtain a synthetically constructed dependent variable, I relied on the following question which allowed participants to choose multiple answers: "*In general, how do you spend your leisure time?*" The question included seventeen indicators of cultural

participation.[22] In the end, I developed a cultural participation matrix for each individual, where the activities are equal to 1 if a respondent chose the corresponding leisure activity and 0 otherwise. I then ran a factor analysis on respondents' cultural participation matrix, including the respondents' dichotomous answers on 17 different cultural activities during their leisure time (Le Roux & Rounet, 2004; Child, 2006; Le Roux et al., 2008; Stevens, 2012). Following this analysis, I interpreted the dimensions according to the contributions of the variables with respect to participation in cultural activities Lastly, I predicted respondents' scores on the underlying dimensions. The predicted scores in the dimension capturing the highest variance is the dependent variable. Finally, I ran a multivariate regression analysis with this omnivority index as the dependent variable; birth cohort as an exogenous independent variable; and class, cognitive ability, and network heterogeneity as the variables (partly) mediating birth cohort effect.

b. Independent variables

Cultural preferences partly depend on the social context in which people live and the personal values acquired from their environment (Van Eijck, 2000; Peterson, 2005; Cutts & Widdop, 2017). Owing to the nature of cultural values, it is commonly assumed that the diffusion of social-cultural change occurs through birth cohort replacement (Peterson & Kern, 1996; Lizardo & Skiles, 2012; Reeves, 2014). Therefore, I consider that birth cohorts capture social change and rising individualistic ideas. I agree with Ryder's (1965) view that peoples' aesthetic appreciations are formed mainly during childhood and adolescence and that they remain mostly constant throughout their lifetimes (Ryder, 1965; Glenn, 2005). In Ryder's words: "*each new cohort makes fresh contact with the contemporary social heritage and carries the impress of the encounter through life*" (Ryder, 1965, p. 844).

Therefore, cohorts are assumed to group people, and "*membership may be thought to index the unique historical period in which a*

[22]For variables and their factor loadings, see Table 3-1.

group's common experiences are embedded" (Alwin & McCammon, 2002, p.23). For ease of interpretation in the empirical analyses, I measure the birth cohort as a variable with three categories of years encompassing 20 years of age each. I calculated this using the respondents' birth years (min. 18–38, max. 58–78).

I employed the Erikson Goldthorpe Portocarero (EGP, see Erikson & Goldthorpe, 1992) class schema to classify both a respondent's and their father's social class[23] when the respondent was aged 16. For the sake of simplicity, I transformed the original 3-digit occupational codification into an EGP class with five categories: service class, routine nonmanual workers, farmers and farm laborers, skilled workers, and non-skilled workers.

In line with the aforementioned literature on education, I used respondents' formal education levels to capture cognitive ability. I simplified the data presentation by transforming respondents' education levels into interval variables representing the typical years of education completed at each level[24] (min. 0 years, max. 26 years, mean 11.9 years, SD 5.1).

Building on the existing literature, I measured network heterogeneity level using three proxies: social mobility,[25] geographical distance

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[23]Sociologists employ education, social class, and social status as a proxy for social position. Because I aimed to test class-related arguments in this chapter, I used social class to approximate socio-economic status. Thus, social class of origin refers to the father's occupation and corresponding social class. Since the survey also does not include questions pertaining to level of parental education (father or mother), I could not measure mobility based on educational mobility, another common research strategy in the sociology of taste (Daenekindt & Roose, 2013b).

[24]The survey includes 16 education levels: No education, less than 5 years, primary education, FP primary degree, secondary education, FP medium degree, bachelor's degree, FB superior degree, technical education, college education, graduate degree, license degree, master in technical education, master's degree, doctorate, post-doctorate and more. I used https://www.educacionyfp.gob.es to convert education levels to the number of schooling years.

[25]To construct the level of social mobility, I created a variable with three categories measured by the differences between father and respondent's social classes. For the sake of simplicity, I used three levels of social classes (e.g., upper [3],

from people's stronger ties, and the main type of social network (people with whom the respondents mostly spend their leisure time with). To create a composite index capturing an individuals' network heterogeneity, I performed multiple correspondence analysis (MCA) over these three variables. Following MCA, a two-dimensional solution was found. The accumulated variance reached 64%, where the contribution of the first dimension accounted for more than half of the variation. Table 3-1 presents the coordinates and contributions of the three input variables for the first dimension.[26]

[Table 3-1 about here]

Any sort of mobility trajectory, high degrees of geographical mobility (i.e., living far from people with whom one has strong ties), and spending leisure time with organizations were found to have positive correlations with Dimension 1. In line with the literature, I expect that socially and geographically mobile people experience mixed socialization and are more likely to have many weak ties and heterogeneous networks than immobile people. Accordingly, individuals who mostly spend their leisure time with individuals with whom they share strong ties, such as family members or partners, tend to have homogeneous social networks. Therefore, I argue that Dimension 1 captures the differences in heterogeneous networks.

I measured a respondent's heterogeneous network level by using the respondent's predicted scores on the first dimension. High ratings indicate that a respondent is less isolated relative to others who spend

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intermediate [2], and lower class [1]) for both. I provided scores to the respondents' and fathers' classes (same score if in the same class) and then calculated the differences between the scores to group them into different mobility trajectory categories. Thus, if one was grouped in the upper class (score:3) and father's grouping is lower class (score:1), then the respondent mobility trajectory score was calculated as: destination class score – origin class score, which equals 2. I then grouped this respondent into "*very upward mobile*". Similarly, "*upwardly mobile*", "*nonmobile*", "*downwardly mobile*", and "*very downwardly mobile*" groups' mobility trajectory scores are 1,0, -1, -2, respectively.

[26]The high contribution scores relate to the importance of each category in explaining the variations of the given dimension. The coordinates locate the values of the variables using the underlying scale to capture their spatial distances.

more time with primary bonds. The first dimension is also considered more socially and geographically mobile, with more inconsistent and diverse social networks made up of weak ties than their less mobile counterparts. Table 3-1 shows that half of the respondents have not experienced any form of social mobility. The majority (61%) live either together with their family (strong ties) or very close to them. A total of 18% mentioned that they do not have enough leisure time, and 27% of them spend their leisure time with their family.

3.4 Findings

To reveal the associational relationships between cultural preferences, factor analysis using STATA 13 was performed on a set of cultural activities. Based on the eigenvalues, I choose a one-dimension solution, which explains about 90% of the variance.[27] Table 3-2 shows the factor loadings of each cultural activity on the factor. All variables are loaded on a single factor model and their weights are positive. The model is also reliable according to the literature as it has at least four loadings with scores over 0.30 (Child, 2006; Stevens, 2012; Tabachnick & Fidell, 2014).

[Table 3-2 about here]

Regarding the variables, listening to music (0.531); surfing on the internet, social media, and chats (0.505); reading books/newspapers/ comics (0.415), and going to the theatre/cinema (0.471) have the highest loadings on the factor and thus contribute the most to omnivority. Contrarily, chilling out (0.158), watching T.V. (0.116), and manual work (0.165) have the lowest impact on omnivority.

The figures below illustrate the distribution of cultural activities and variables of interest along with the mean omnivority scores. On the X-axis, I locate the exogenous (birth cohort) and other independent variables included in the analyses, along with the dependent variable (omnivority score). The percentages for cultural activities of

[27]Only one factor's eigen value is above 1.

categorical independent variables are reported on the Y-axis on the left.

[Figure 3-1 about here]

[Figure 3-2 about here]

[Figure 3-3 about here]

[Figure 3-4 about here]

On average, cultural activities are evenly distributed across classes and birth cohorts, with the exceptions of the upper classes, nonskilled classes, and the youngest and the oldest birth cohorts.[28] Interestingly, these groups contrast each other in the frequently preferred activities on the cultural participation list. For instance, Figure 3-1 shows that the youngest birth cohort mainly chose study (58%), bar (49%), playing games (43%), and internet (%43); while older birth cohorts scarcely preferred these activities, opting for club membership (40%), manual work (39%), and radio (31%) instead.

Similarly, as illustrated in Figure 3-2, concerts (38%), study (37%), and going to the cinema (32%) are mostly preferred by the upper class. Nonskilled workers, meanwhile, show a slight aversion to these activities, with watching T.V. (33%), chilling out (32%), and manual work (30%) as their preferred activities—all of which are the least desired by respondents in the upper class. Figure 3-3 shows that study (15.7%) and concerts (14.1%) require the highest mean years of schooling; meanwhile, game (11.8%) and watching T.V. (12.2%) are associated with the lowest level of schooling. Lastly, as seen in Figure 3-4, shopping (0.32) and sports events (0.23) have the highest heterogenous network scores; manual work, playing games, watching T.V., and going to bars, meanwhile, have the lowest (0.04) scores.

[28]Farmers and farm laborers have the lowest level of proportions for almost all cultural activities due to their relatively small sample size across the groups.

In the above-mentioned graphs, the Y-axes on the right present the standardized mean omnivority score for each cultural activity.[29] For each birth cohort, going to concerts has the maximum mean omnivority scores, while watching T.V. and chilling out had the minimum scores (see Figure 3-1). Similarly, as shown in Figure 3-2, concerts and sporting events generally have the highest omnivority scores across social classes. Interestingly, playing games and study have one of the highest mean omnivority scores within the upper class (service and routine non-manual workers), which might be explained by the density of younger people among these classes (see Table 3-3). Figure 3-3 and Figure 3-4 show that going to the concerts, playing games, and doing sports have the highest omnivority scores across cultural activities.

Table 3-3 below shows a descriptive analysis of the chosen variables. Omnivority represents individuals' predicted scores on the dimensions based on their cultural activity matrices. The table reveals that the omnivority score, the network heterogeneity score (min. -2.25; max. 2.03; mean 0.23), and the highbrow score (min. -2.50; max. 3.40; mean -1.9) gradually increase by social class and birth cohort. In addition, the average number of schooling years is 11.9 years (SD: 4.8). Lastly, the number of preferred activities—one of the main indicators in the literature on omnivority—is a simple variable created by counting an individual's chosen cultural activities.[30]

[Table 3-3 about here]

Table 3-4 presents the coefficient estimates and standard errors of the regression models with the omnivority score as the dependent variable. There is clear evidence of a birth cohort effect on the

[29]Because these means will vary depending on the unit of measurement, I express them in the same 0–100 scale, taking the difference between the maximum and the minimum values as the range of the original variable, and then calculating what the mean would be if the range was 100.

[30]A Pearson correlation test was run to assess the relationship between the omnivority score and the number of preferred activities; I found a strong correlation between the two ($r = 0.761$, $p < 0.005$), and thus the construct relates to the approach used in the literature but captures omnivority using the more sophisticated method.

omnivority score in the base model. The level of omnivority decreases gradually from the youngest birth cohort (aged 18–38) to the oldest one (aged 58–78), and the difference across birth cohorts remains unchanged for all models, staying statistically significant at 0.05. This supports *Hypothesis 1,* which argues that there are birth cohort differences in omnivority due to changes in values, and the diffusion of individualistic ideas is mostly internalized by younger birth cohorts.

[Table 3-4 about here]

I then added social class (Model 2), heterogeneous network and cognitive ability (Model 3), and all the independent variables along with the exogenous variable (Model 4) to the base model. Model 2 accounts solely for the impact of birth cohort and social class. The results show that omnivority scores gradually decreases from the upper-class to non-skilled workers, supporting *Hypothesis 2a* and asserting class-bounded relations of cultural activities. Also, Model 2 shows that the differences between the youngest and oldest birth cohorts for the omnivority coefficient estimate slightly decreased compared to the base model, yielding support for *Hypothesis 2b*. In other words, class partly mediates the effect of birth cohort on omnivority, as compositional class differences caused by birth cohort replacement increase (aggregate) omnivority in the upper strata.

In Model 3, I added heterogeneous networks and cognitive abilities to the base model. The results support *Hypothesis 3a*, showing that heterogeneous social networks and cognitive ability have a positive impact on cultural omnivority. I also investigated the mediating roles of heterogeneous networks and cognitive ability in birth cohort differences for omnivority. The differences between the birth cohorts did change significantly with their addition in Model 3. Interpreted together, education and heterogeneous networks play a significant role in determining one's omnivority level, and they reduce birth cohort differences by developing people's appreciation of a wide range of cultural activities. Hence, I found support for *Hypothesis 3b,* which suggests that a heterogeneous network has a mediating effect on reducing birth cohort omnivority differences.

After adding all the independent variables to the base model (Model 4), birth cohort differences in omnivority indeed increased. However, class differences in omnivority decreased significantly and remained slightly significant between the upper class and the lower class. The result shows that cognitive abilities and heterogeneous networks compensate for class-bounded omnivority, thus suggesting that structural inequalities in omnivority are losing their prominence in Spain. Also, the effect of heterogeneous networks and cognitive ability on omnivority decreased slightly (see coefficients in Model 2 and Model 3), because the changes in class structure across birth cohorts partly increased heterogeneous networks and cognitive abilities. Furthermore, they play a mediating role to compensate for class-bounded relations to omnivority, thus supporting *Hypothesis 4*, the *joint argument*.

In the graphs below, I report the predicted marginal effects of birth cohort, class, heterogeneous network, and cognitive ability on omnivority to visualize how much of the effect of birth cohort on omnivority operates in common with these variables. Figure 3-5 combines the predicted marginal effect of birth cohort on omnivority scores in all models included in the analysis. It shows that birth cohort differences significantly decrease for the youngest and oldest birth cohorts in the opportunity model (Model 3), highlighting the importance of education and heterogenous networks in shaping an omnivorous cultural pattern.

[Figure 3-5 about here]

[Figure 3-6 about here]

In Figure 3-6, I present how much of the effect of social class in the class model (Model 2) is explained away by cognitive ability and heterogenous networks when these were entered in the joint model (Model 4). The predicted marginal effect of service class on omnivority significantly decreased in the joint model, while the effects of the lower classes increase, expressing the mediating effect of education and heterogeneous networks in the formation of omnivority.

[Figure 3-7 about here]

[Figure 3-8 about here]

Lastly, Figure 3-7 and Figure 3-8 show that the predicted marginal effects of cognitive ability and heterogeneous networks on omnivority decreased after class was included in the opportunity model, thus confirming that the relationship between cognitive abilities, heterogeneous networks, and omnivority is partly mediated by the relationship between social class and omnivority.

3.5 Discussion, conclusions and limitations

Following the challenge of Peterson and his colleagues to Bourdieu's widely accepted *homology argument*, the past thirty years have witnessed substantial growth in the literature on cultural omnivority. In stark contrast to the abundance of research on class-bounded relations to cultural omnivority, in-depth analysis of how cultural change shapes cultural preferences remains an under-examined field in sociology. This chapter aimed to fill this void in the sociocultural literature by bringing together existing arguments on cultural change, class, education, social connections, and omnivority.

I began by testing the *cultural change argument*, which claims that post-materialist, cosmopolitan, and commercialized cultural values have occasioned the rise in omnivority. Consequently, younger birth cohorts who grew up in diverse social environments tend to develop more of an omnivore cultural pattern than their older counterparts. To test this, I used birth cohort as a proxy for cultural change.

I then presented three theoretical views explaining how class, education, and heterogeneous networks, along with the birth cohort-bounded relations, influence omnivority: (i) the s*ocial class argumen*t links the rise in birth cohort omnivority to changes in class structure and studies the relationship between class and omnivority; (ii) the *changes in opportunities argument* links omnivority to the expanding structure of opportunities over time, as captured by the rise in education and changes in social networks (geographical and social mobility); and, finally, (iii) *the joint argument* deals with the social change involving the complex patterns of associations between social classes (positions, destinations) and opportunities (access to

the destinations) and how they influence the birth cohort omnivore pattern over time.

I measured omnivority based on a range of leisure activities using FA, then ran multilevel regression models on each individual's predicted omnivority scores, where birth cohort is the exogenous variable. I subsequently added social class, cognitive abilities, and heterogeneous networks to the base model. Overall, the results show that younger people and individuals possessing higher levels of cognitive ability and heterogeneous network scores tend to have higher omnivority scores. Even though there might be a lot of unobserved sources of unobserved heterogeneity and confounding factors, the results find evidence in favor of a possible relationship between birth cohort and cultural omnivority.

Also, observable is a class-bounded relationship of an omnivore pattern, where the omnivority scores gradually decrease from the service class to non-skilled workers. After adding class to the model, birth cohort differences in omnivority slightly decreased, partly explained by the significantly proportional decrease of the lower classes as young people join the ever-expanding service industry. Lastly, the effects of cognitive ability and heterogeneous networks on omnivority decreased class differences in omnivority. Interpreted together—and seeing the growing tolerance of other cultural tastes, increasing opportunities thanks to democratized public education, a mixed social context, and social and geographical mobility—cultural omnivority may gradually lose its distinction among people in the upper strata; thus, all will eventually become culturally omnivorous.

The birth cohort effect, however, should be interpreted with caution, since the diversity of cultural activities may vary throughout one's lifespan, due to limitations in the availability of leisure time and mobility and to other changing priorities (e.g., family commitments, university education, having a baby, retirement, etc.). In other words, young people tend to have more free time and opportunities to engage in cultural activities than older people and have higher levels of omnivority across all classes. Although the underlying mechanisms of omnivority have been extensively studied, further longitudinal work is needed to unearth other drivers of omnivority such as age (Sullivan & Katz-Gerro, 2007; Reeves, 2014). In this chapter I did

not attempt to disentangle age from birth cohort effects due to the cross-sectional nature of the data. Using a rich panel research design on cultural practices might further reveal the intrinsic mechanisms of omnivority, helping scholars understand the long-term implications of these proxies.

A different issue is whether the observed changes in omnivority across birth cohorts can be associated with cohort or age effects. In what regards the part of these differences that is associated with educational variations, and to the extent that, as argued above, education provides a good measure of cognitive abilities, it seems implausible that these abilities will decrease with age (except at old ages, which were mostly excluded from this study). In what regards cohort differences in omnivority associated with class variations and given the evidence that class positions are acquired early in in life and remain stable along the life cycle, it is also implausible that the changes in omnivority across cohorts be expressing age effects in class positions. One possible test to be carried out in the future to evaluate the plausibility of this interpretation might consist in including an interaction effect between class, cohort and omnivority and to assess its significance. If period, rather than age effects were driving the differences in omnivority across birth cohorts, one should expect the impact of class on omnivority not to differ across birth cohorts, thus indicating that the changes in omnivority are linked to changes in cohorts' class composition. A significant interaction effect might not necessarily indicate the presence of age effects for one could still argue that class effects on omnivority have weaken across cohort (over time).

My research design was also limited in that it focused only on the mediating role of education as an indicator of individuals' cognitive abilities in explaining the differences across birth cohorts in omnivority levels. Education has two main use in the literature. The sociological standing prefers to focus on the credential aspects of education (typically measured with the level of education) and its status distinction (Collins, 1979; Bourdieu, 1984; Bennet et al., 2006). Economists, on the other hand, highlight the importance of education in developing individual's cognitive capacity and human capital, which is mostly acquired during primary socialization and formal education (Ganzeboom, 1982; Becker, 1994 Eliasoph &

Lichterman, 2003). Both elements are difficult to disentangle. There is a strong relationship between the two effects, which are presented as alternative or complementary to each other depending on the study (Roksa & Levey, 2006; Arum& Roksa, 2014). In this chapter, I focused on cognitive abilities (the mental skills and capacities for self-direction) which socialize people into various types of cultural appreciation, and under the assumption than the status distinctions of education will be captured by class. Such approach also helped me combine the composition of network and social mobility patterns into the opportunities arguments as they all relate to individuals' cognitive capacities (after controlling class).

This approach, however, is in contrast to Chapter 2, where I aimed to capture the more status-borne or credentialism effects of education. Credentialism refers to status distinctions yielding differential returns in the labor market (Collins, 1979), and it is typically measured in the literature with individuals' attained levels of education (Lemieux, 2006; Barone & van de Werfhorst, 2011). Cognitive abilities refer to brain-based skills needed to carry out tasks of varying complexity – what economists refer to "*human capital*" (Becker, 1964) – and are typically measured in the literature with years of education (Card & Krueger, 1992). The two forces are of course strongly and positively correlated, because in order to attain higher levels of education one typically needs higher cognitive abilities, and because the expansion of these abilities is often regulated by the attainment of specific credentials. Thus, in many respects it is difficult to ascertain if the observed increase in omnivority observed in this chapter in the youngest cohorts reflects a general increase in cognitive abilities associated with the universalization of public education, or an increase in the number of middle and top credentials. And yet, if the latter were the case, one should also expect to observe an increase in occupations requiring such credentials in the youngest cohorts, a trend that should be captured by the social class variable that I included in the models. This provides some reassurances that the changes in omnivority across cohorts can be interpreted as being due to a general increase in cognitive abilities across cohorts.

Finally, another limitation of this study lies in the understanding and implementation of the concept of omnivority. There are two ways of measuring omnivority: (i) as the extent to which a person blends

socially valued and non-valued cultural expressions in his/her cultural preference palette, and (ii) as a cultural appetite for all cultural expressions. The factor analysis performed in this chapter is a better indicator of the second meaning, for it represents an index of "*cultural activism*." The first definition, which encompasses the idea of (cultural) boundary crossing, was outside the scope of this study.

The results were furthermore based on a study of the Spanish population; the findings therefore cannot be generalized to other countries due to differences in social contexts. Methodologically, surveys try—and often fail—to perfectly capture variables of social change, leaving this phenomenon notoriously hard to measure. While my proxies accurately captured the effects of socio-cultural change on omnivority, they should be re-examined and expanded upon in future studies. I nevertheless hope this research contributes to the discussion on the formation of omnivority and lays the foundation for future investigation.

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Table 3-1. Results from MCA for the first dimension (heterogeneous network).

	Sample size in %	*Contribution*	*Coordinates*
Social mobility Trajectory			
Nonmobile	51%	0.14	-0.94
Very upwardly mobile	7%	0.05	**2.25**
Upwardly mobile	2%	0.11	**0.77**
Downwardly mobile	16%	0.05	**0.70**
Very downwardly mobile	2%	0.02	**0.74**
With whom do you usually spend your leisure time?			
I spend no leisure time alone	18%	0.80	-1.98
With an organization	1%	0.26	**2.54**
With my friends	9%	0.04	**0.15**
With my family	45%	0.04	-0.33
With my partner	27%	0.55	-1.24
Strong ties' geographical distance			
My family and I live in the same location	25%	0.10	-1.91
The majority of my family and I live in the same location	34%	0.03	-0.78
I and approximately half of my family live in the same location	16%	0.01	-0.57
The majority of my family live in different locations from me	16%	0.04	**0.58**
All of my family live in different location from me	9%	0.05	**0.73**

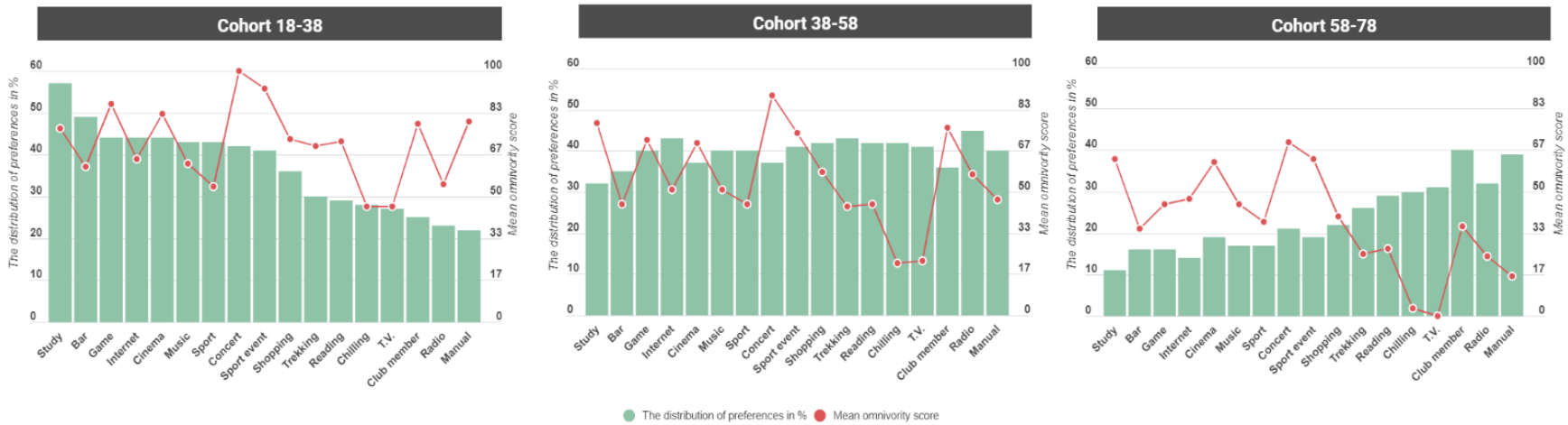
Note: The cell is bolded if the value is greater than 0.

Table 3-2. Results from factor analysis.

Cultural Activities	*Sample size in %*	*Factor Loadings*
Chilling	14%	0.158
T.V. (Watching T.V.)	13%	0.116
Music (Listening to music)	9%	**0.531**
Reading (Reading books/ newspapers/ comics)	8%	**0.415**
Internet (Surfing the internet, social media, chats)	8%	**0.505**
Trekking (Trekking/ traveling)	7%	**0.360**
Sports (Doing sports)	7%	**0.365**
Radio (Listening to the radio)	6%	**0.382**
Shopping	5%	**0.383**
Bar (Going to bar/discos)	5%	**0.303**
Cinema (Going to the theatre/cinema)	4%	**0.471**
Manual work	3%	0.165
Game (Playing game)	3%	**0.354**
Study	3%	**0.355**
Concert (Attending concerts/musical shows)	2%	**0.423**
Sports event (Watching a sporting game)	2%	**0.332**
Club membership (Clubs/associations)	2%	0.232

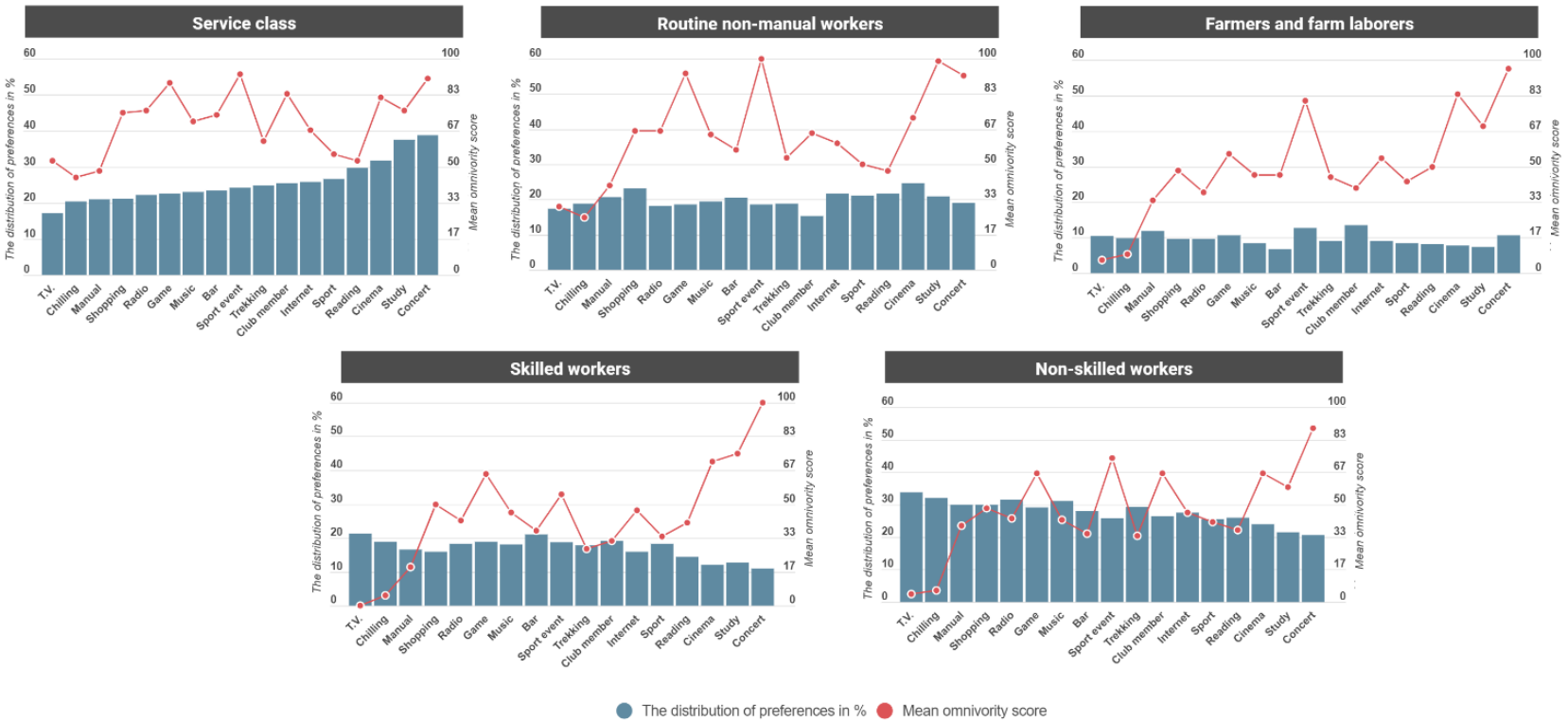
Note: The cell is bolded if the value is greater than 0.3.

Figure 3-1. The distribution and the mean omnivore scores of cultural activities by birth cohort.



Note: Red dots reflect the rescaled mean of omnivority (min:0 and max: 100) in each cultural activity.

Figure 3-2. The distribution and the mean omnivore scores of cultural activities by social class.



Note: Red dots reflect the rescaled mean of omnivority (min:0 and max: 100) in each cultural activity. Blue bars show the percentage of the given cultural activities across social classes.

Figure 3-3. The mean years of schooling and the mean omnivore scores by cultural activities.

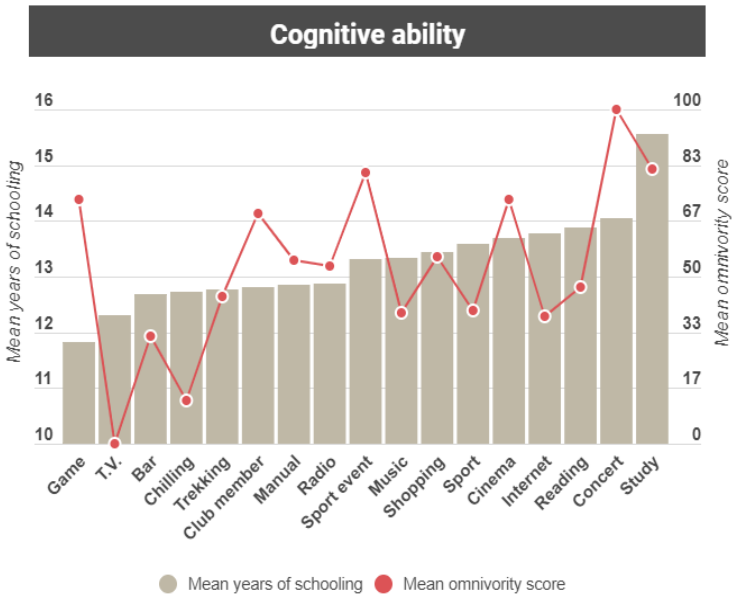
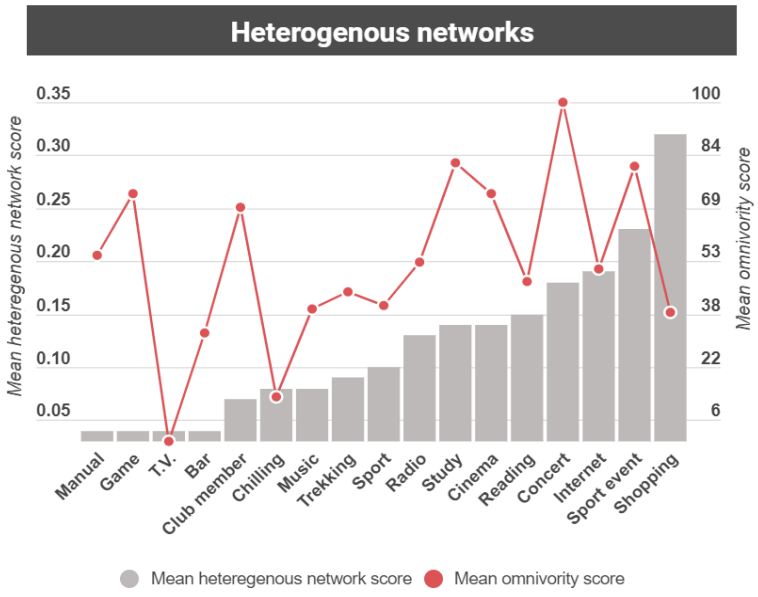


Figure 3-4. The mean heterogeneous network score and the mean omnivore scores by cultural activities.



Note: Red dots reflect the rescaled mean of omnivority (min:0 and max: 100) in each cultural activity.

Table 3-3. Descriptive analysis of the main variables of interest in the sample.

	Sample size in %	*Activities*	*Omnivority*	*Network*	*Cognitive Ability*	*Age cohort*		
						18-38	38-58	58-78
Birth cohort								
18–38	30%	6.1	0.34	0.03	13.2			
38–58	39%	5.2	-0.03	0.04	12.8			
58–78	31%	4.9	-0.32	-0.09	8.5			
Social Class								
Service Class	21%	6.2	0.38	0.44	16.9	23%	19%	19%
Routine Non-manual Workers	19%	5.6	0.12	0.26	13.0	21%	18%	16%
Farmers & Farm Laborers	7%	5.0	-0.11	-0.10	10.9	7%	11%	11%
Skilled Workers	21%	4.7	-0.20	-0.13	9.8	20%	17%	22%
Non-Skilled Workers	32%	4.9	-0.16	-0.31	9.8	28%	34%	31%
Cognitive ability						13.8	12.7	9.54
Network						0.09	-0.04	-0.03

Table 3-4. Multivariate analysis.

	Model 1 (Base Model)		*Model 2 (Class)*		*Model 3 (Opportunity)*		*Model 4 (Joint Model)*	
	β	SE	β	SE	β	SE	β	SE
Birth cohort (Ref: 18-38)								
38-58	-0.207***	(0.05)	-0194***	(0.04)	-0.181***	(0.05)	-0.191 ***	(0.05)
58-78	-0.433***	(0.04)	-0.416***	(0.06)	-0.285***	(0.04)	-0.302***	(0.04)
Social Class (Ref: Service)								
Non-manual workers			-0.197***	(0.05)			-0.058	
Farmers & Farm laborers			-0.329***	(0.07)			-0.121	
Skilled workers			-0.396***	(0.05)			-0.124*	
Non-skilled workers			-0.402***	(0.05)			-0.145**	
Heterogenous network					0.078***	(0.01)	0.071***	(0.01)
Cognitive Abilities					0.038***	(0.01	0.032***	(0.01)
Gender (Ref: Male)								
Female	-0.021	(0.03)	-0.031	(0.03)	-0.011	(0.03)	-0.024	(0.03)

(Continue on the next page)

Marital Status (Ref: Married)								
Divorced	0.233***	(0.04)	0.231***	(0.04)	0.240***	(0.04)	0.243***	(0.04)
Single	0.038***	(0.05)	0.060	(0.05)	0.090	(0.05)	0.090	(0.05)
Population								
(Ref: Madrid and Barcelona)								
50.000-400.000	-0.395***	(0.05)	-0.353***	(0.05)	-0.334***	(0.05)	-0.316***	(0.05)
10.000-50.000	-0.387***	(0.05)	-0.322***	(0.05)	-0.290***	(0.05)	-0.281***	(0.05)
Less than 10.000	-0.333***	(0.05)	-0.268***	(0.05)	-0.234***	(0.05)	-0.225***	(0.05)
Constant	0.226***	(5.36)	0.595***	(2.4)	-0.281***	(0.06)	-0.090***	(0.09)
R-Square	7.4%		14.8%		14.2%		17.5%	

Note: p<0.1; **p<0.05; ***p<0.01

Figure 3-5. The predicted marginal effect of birth cohorts

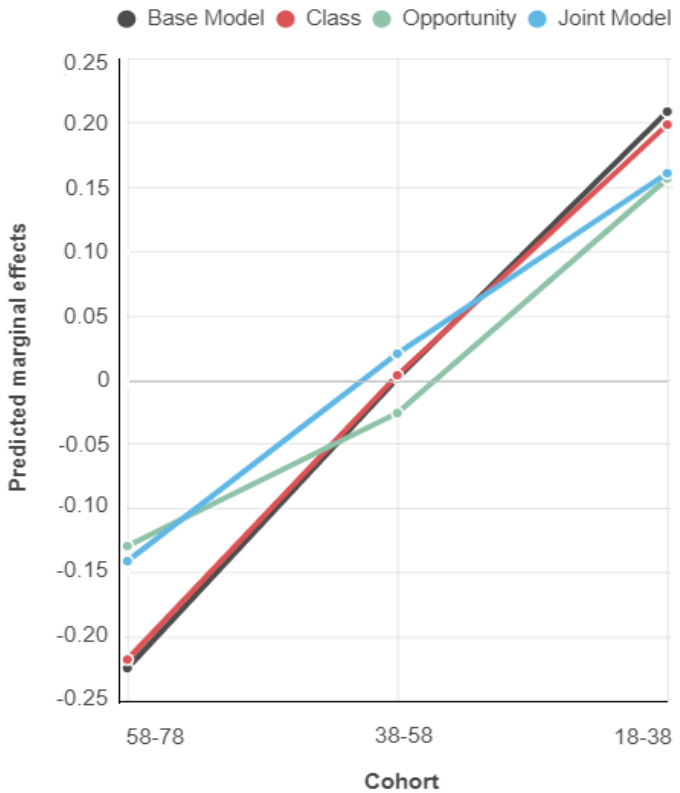


Figure 3-6. The predicted marginal effect of social class

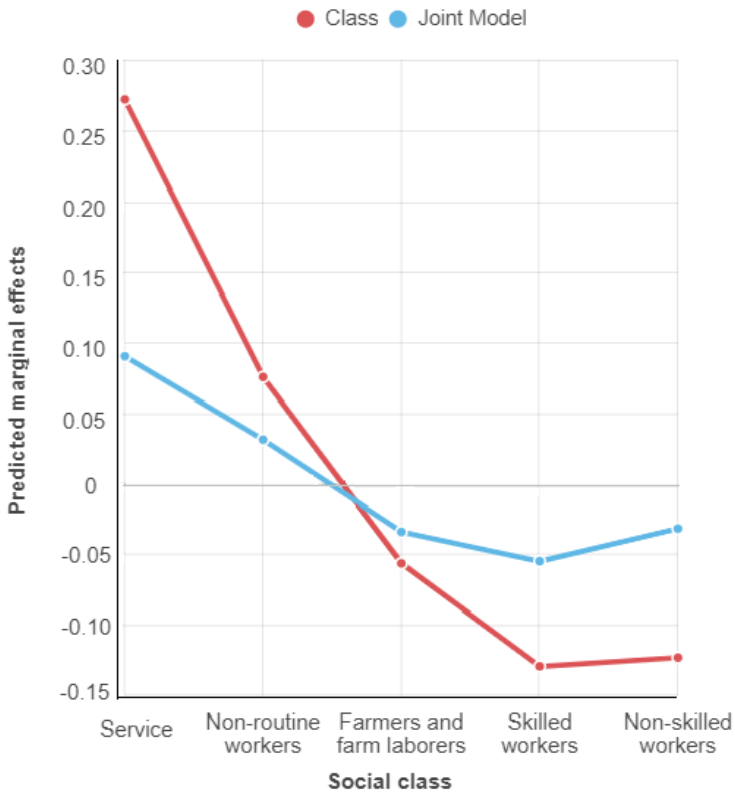


Figure 3-8. The predicted marginal effect of cognitive abilities.

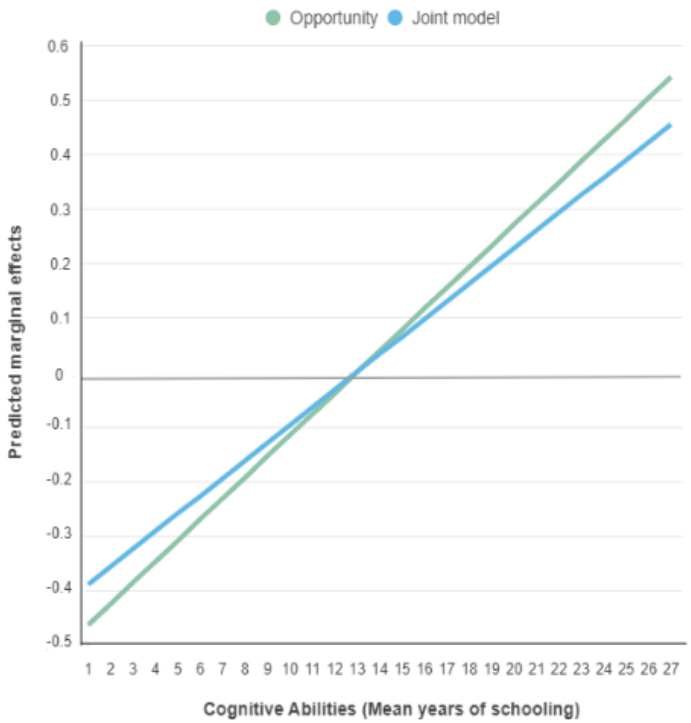
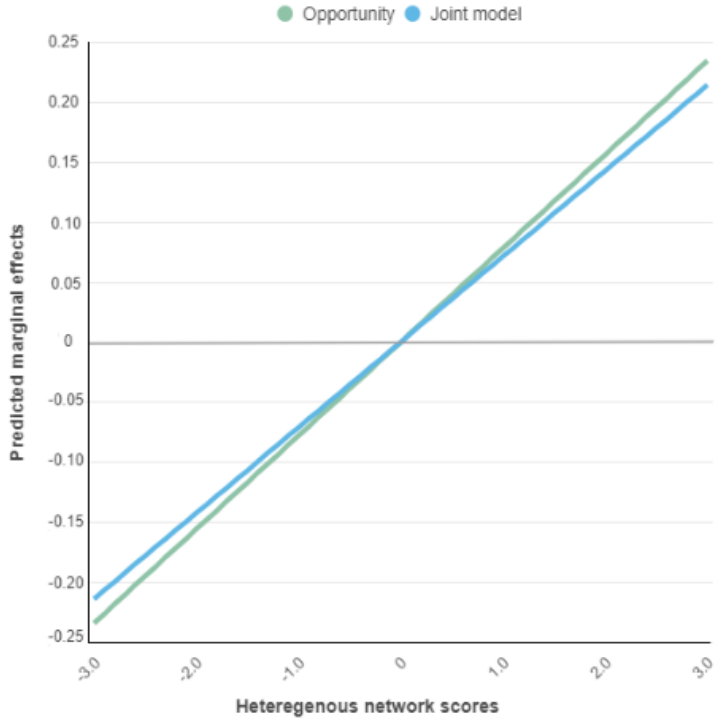


Figure 3-7. The predicted marginal effect of heterogeneous scores.



4 OFFLINE AND ONLINE COMMUNITIES: DIFFERENCES AND CONSEQUENCES FOR SOCIAL INEQUALITIES

Abstract

This chapter explores the relations between face-to-face and online connections with the help of two constructed measures: online and offline social capital. Using these constructs, I provide a clear picture of how online and offline social capital facilitate one another, and to what extent the socio-economic characteristics affect these relations. To do so, I use Barómetro-3128 carried out by Centro de Investigaciones Sociológicas (CIS) in Spain in 2016. I first test whether our online and offline constructs have internal measurement validity. Then, I compare them across the birth cohort, education, and social class. Findings towards increased online social capital among the younger, the highly educated, and the upper-class people widen the social capital gap between generations and socio-economic structures; however, it is not occurring at the expense of face-to-face connections.

4.1 Introduction

Social capital is a key concept in the field of social stratification. Along with economic and cultural capital, it is a major source of social inequalities. It is also a difficult concept to grasp. Unlike economic capital, which is more easily quantifiable, the measurement of social capital is plagued with theoretical controversies and empirical difficulties. As communications have shifted towards the digital domain, these difficulties have increased. Furthermore, questions have naturally arisen about whether individuals mimic their face-to-face patterns of social communication in the virtual world; whether the digital media affect in fundamental ways how I communicate with others; or whether the digitalization of the social world is deepening social inequalities. This chapter aims to contribute to these debates by proposing new instruments to measure social capital and by investigating if the increasing digitalization of social life is altering its nature and distribution in society.

Current academic debates center around whether online social capital gained through personal digital media (PDM)[31] platforms are differentiating from local, tight-knit communities, or if these virtual connections are merely extensions of real-life relationships and provide support to local communities (William, 2006; Humphreys, 2007; Papacharissi & Mendelson, 2011; Gil de Zuniga et al., 2012; López-Sintas et al., 2012; Bode, 2016).

The *mirroring view* sees online social capital as a reflection of offline social capital. How we nourish our offline community extends to our online connections, meaning that online interactions supplements to our face-to-face communications (Kraut et al., 1998, 2002; Mckenna

[31]PDM, or personal digital media, is an umbrella term for one-to-one and one-to-many forms of online communication. One-to-one digital platforms allow members to connect to their communities via instant messaging, phone calls, or e-mails. One-to-many platforms, such as social network sites (SNSs), are ego-centric web-based platforms where an individual can create a personal profile, manage online friends/followers, and socially interact with them (Ellison et al., 2014).

& Bargh, 1998; Hampton & Wellman, 2001; Wellman et al., 2002). Linked to this view, the *continuity argument* claims that the benefits that various socio-economic groups derive from social capital are the same in face-to-face as in virtual life (Tyler, 2002; Lin & Erickson, 2008). Even though online communication is becoming one of the standard practices of daily life and online forms of social capital may be strengthening among younger birth cohorts, inequalities in social capital have remained constant (Lin, 1996).

The *replacement view*, in contrast, considers that there has been a significant transformation in how people interact with others—that online social capital differs substantially from its offline counterpart (Turkle, 1995; Nie, 2001; Calvert, 2002; Putnam, 2002; Marwick, 2005; Van Dijk, 2005; boyd & Ellison, 2007; Baym, 2010). There are two competing arguments considering the consequence of such differences on the distribution of online social capital across social groups (Alexander et al., 2003; Marwick & boyd, 2011). The *levelling argument* states that they have favored the disadvantaged, by giving them access to types of social capital previously reserved for the advantaged (Schau & Gilly, 2003; Donath & boyd, 2004; Ellison et al., 2011b). On the contrary, the *deepening inequality argument* states that the digital divide is reinforcing social inequalities, translating the offline inequalities into the online, enhancing the instrumental use that the advantaged have traditionally made of (weak) ties, and strengthening the social segregation of the disadvantaged (McPherson et al., 2001; Nie, 2001).

This study aims to test these competing arguments. First, I seek to systematize what is already known about the dimensions of social capital in offline vs. online networks, and the main arguments explaining their association. Second, I propose novel ways to measure online and offline social capital with survey data from a representative sample of the Spanish population. Inspired by Lin's work (2001), I generate four indicators for both online and offline communications of: communication intensity (size of personal network and frequency of contact); network multiplexity (heterogeneity of contacts); weak-ties (strength of the ties linking respondents to contacts); and instrumentality of action (typical use of the network). Third, I test whether the indicators of online and offline

social capital measure the same construct, thus testing the *mirroring* vs. *replacement arguments*. Finally, I assess whether inequalities in social capital across birth cohorts, educational groups, and social classes are larger in the online or offline worlds, thus testing the *continuity* vs. the *levelling* vs. the *deepening inequalities arguments*.

4.2 Theoretical framework

4.2.1 Social capital in offline and online networks

The concept of social capital is controversial. Multiple approaches have applied to understanding how people form, and benefit from, their social networks (Bourdieu, 1986; Coleman, 1988; Putnam, 2000, Adler & Kwon, 2002; Williams, 2006; Cho, 2015; Engbers et al., 2017). In this chapter, I utilize Lin's (2001) definition and conceptualization of social capital, which incorporates network locations and embedded resources with a great level of detail. A significant advantage of his approach is that it identifies the intensity, diversity, weak-ties, and instrumentality of social ties, integrating multiple approaches from the social capital literature (Lin, 2008).

Table 4-1 depicts my adaptation of Lin's theory (2001, p. 14). His approach considers the accessibility and mobilization of an individual's social network as a source of social support. Embedded resources define the individuals' accessibility to the network regardless of the characteristics of the contacts that compose it. Two dimensions are key: Communication intensity and network multiplexity. Communication intensity captures how many contacts a person has and the frequency of communication with them. It measures the potential size of individuals' social resources. Network multiplexity deals with the heterogeneity and diversity of such contacts.

[Table 4-1 about here]

Network locations determine the mobilization or uses that can be made of social resources, and are a function of the characteristics of one's social contacts. They are determined by two factors: the strength of the ties binding individuals to contacts, and the

instrumental vs. expressive nature of the actions carried out through them. Both help determine individuals' distances from the bridges connecting them to other networks (Burt, 1997; Lin, 2001). Weak ties bind individuals to other networks while strong ties do it to individuals within the same network. Instrumental actions are oriented towards obtaining other resources than those typically controlled by an individual, while expressive ones are aimed at reinforcing those already owned. I next briefly review how these components are defined and measured in the literature.

a. Communication intensity

As noted, communication intensity provides information about accessibility to resources embedded in a network (Haythornthwaite, 2000; Lin, 2001; Pachucki & Breiger, 2010). Offline, it is often measured by considering the number of individuals contacted within various communities (e.g., family members, colleagues) and the frequency of interactions with them (Burt, 1997; Carrillo & Riera, 2017). Online communication intensity is similarly measured with the number and frequency of connections across various digital media platforms (Wellman et al., 2002; Ellison et al., 2007). It tends to be larger than in real-life connections, as PDM facilitate individuals' access to more distant contacts (e.g., keeping in touch with a friend from high school) and the building of brand-new connections (Kim et al., 2002; Ellison et al., 2011b).

b. Network multiplexity

Network multiplexity captures the diversity of resources that individuals can access (Lin, 2001)—a function of the heterogeneity of one's contacts. Low multiplexity hinders access to distinct resources (Burt, 1997; Haythornthwaite, 2000; Wellman et al., 2002; Ellison et al., 2012). Contrary to face-to-face multiplexity indicators, their online counterparts not only measure how diverse are the communities contacted by an individual (family, workmates, etc.) but also the diversity of the means used to communicate with them. The rationale is that when people use fewer PDMs, they reduce the bandwidth through which more diversified resources can flow

(Haythornthwaite, 2005; Ling, 2008; Aral & Van Alstyne, 2011; Papacharissi & Mendelson, 2011).

c. Weak ties

The notion of weak ties traces its roots to Granovetter (1973), who scaled social links from very strong to very weak. A strong tie represents exchanges between people in intimate relations, such as family and close friends. Putnam (2000) associated them with bonding social capital and emotional support. A weak tie, by contrast, is a casual and less emotionally charged exchange between distant connections such as neighbors. Putnam (2000) associated weak ties to bridging social capital, which facilitates access to novel information (e.g., job opportunities) and differing worldviews.

Digitalization has facilitated quick communication with others, increasing the size of the networks, the number of weak ties, and the frequency of contact with distant communities (Donath & boyd, 2004; Joinson, 2008; Ellison et al., 2011a; Bohn et al., 2014). This is because PDM reduce the costs of forming new relationships, since the simultaneous presence of others is not required, broadening the pool of potential weak ties (Ellison et al., 2011b; Johnston et al., 2011; Kwon et al., 2013).

d. Instrumental actions

People can make contact with others for multiple purposes. The literature typically focuses on two: instrumental and expressive. According to Lin (2001), people engage in expressive actions (e.g., providing emotional support when needed) to maintain their embedded resources. These actions are more likely to be expressed with others with whom we are linked via strong ties, and whose resources are similar to ours. In contrast, offline instrumental actions (e.g., contacting an acquaintance to find a job or obtain other valuable resources), mostly occur between individuals linked by weak ties. They contribute to, and are facilitated by, bridging social capital, which facilitates access to useful resources embedded in other networks (Van Der Gaag & Snijders, 2005).

Online instrumental actions—such as providing job opportunities on LinkedIn or acting as conduits for useful information—also contribute to one's social capital (Quan-Haase & Wellman, 2004). The use of PDM for instrumental actions helps access the social capital embedded in online communities. It makes available to users otherwise inaccessible forms of interaction, and information that would normally be lost in the space and time coordinates of face-to-face social life (Papacharissi & Mendelson, 2011; Steinfeld et al., 2012). However, PDM can also be used to express emotion (e.g., as when responding to negative updates on a Facebook wall, or celebrating special days using WhatsApp) (Valenzuela et al., 2009; Utz & Muscanell, 2015).

4.2.2 Theoretical arguments

The current debate over the relationships between online and offline social capital poses two fundamental questions. First, does online social capital (and its components) provide the same functions as its real-world counterpart, or are they forms of social capital altogether different constructs with unique functionalities? In case they were different, who has benefitted the most from them expansion of online connections? Is the digital divide contributing to a deepening of social inequalities, or is the expansion of PDM helping to reduce them?

a. The replacement argument and the mirroring arguments

The *replacement argument* considers that digitalization has marked a profound change in social interactions; that online social capital differs substantially from its offline counterpart; and that it is growing at the expense of offline connections (Sproull & Kiesler, 1991; Putnam, 2000; Nie, 2001; Wellman et al., 2001; Beck & Beck-Gernsheim, 2002; Van Dijk, 2005; Livingstone, 2008; Wilkinson, 2010). Not only are people spending more time in digital environments; their ways of communicating have also changed. They have access to more productive forms of social capital and to larger and more varied communities (Nie, 2001). Internet expansion has

strengthened individuals' capabilities for learning, by fostering connectivism with multiple and specialized sources of information (Siemens, 2005).

The *mirroring argument* similarly acknowledges a substantial difference in how we communicate with others. However, it challenges that offline connections are being substituted by virtual communities, or that online identities are independent from their real-life counterparts (Katz & Rice, 2002). It claims that recent social changes (globalization, urbanization, and mobility) have transformed online communities into remote kinds of offline communities, (Ellison et al., 2007). In other words, online and offline connections blend into an integrated set of communications; how people connect to and foster their offline networks carry over into their online relationships (Brandtzæg et al., 2011). PDM are just sets of integrated tools that help connect with already-established, physically distant contacts, strengthening the offline communities.

b. The levelling-up vs. deepening vs. continuity arguments

There is another debate closely linked to the previous one on the consequences that the digitalization of social life may have had on the deepening or levelling-up of socio-economic inequalities. Proponents of the *replacement argument* see the extension of online social capital as having been accompanied by changes in the composition of social capital and its distribution across social groups. However, many scholars view the issue with a different perspective, in terms of whether the digitalization of social life has contributed to deepening or bridging the existing socio-economic and cultural inequalities. Given the almost universal access to, and increasing knowledge of, PDM across the globe, the debate has shifted towards the existence of the so called "*third-level digital divide*" in the returns that users derive from the internet use (van Deursen & Helsper, 2015).

The *levelling argument* considers that the shift towards online forms of communication has reduced social inequalities, giving access to the disadvantaged to forms of social capital and knowledge

previously reserved for the advantaged (Rheingold, 2003; Wellman & Berkowitz, 1998; Wellman et al., 2001). By providing ease access to information and blurring social and geographical boundaries, PDM widely distributes the resources embedded in multiple communities (Haythornthwaite, 2002; Pénard & Poussing, 2005). PDM assist users in hindering identity cues shaped by education and social class, promotes anonymity and self-selectiveness (presenting one's ideal self), and ultimately supports the concept of the global community (Wellman & Haythornthwaite, 2002). This results in a more equal distribution of social capital in online communities, especially benefitting people of disadvantaged social origins. In the online world, weak ties flourish, information flows freely, and job and other opportunities become accessible for everyone (Resnick, 2001; Neves, 2015).

The *deepening inequalities argument* (i.e., Rich-Get-Richer), on the contrary, claims that the digital shift has benefitted the advantaged by multiplying the weak ties they can access and limiting the use that the disadvantaged make of online networks to forming strong ties, thus reinforcing their social segregation (Kraut et al., 2002; Van Dijk, 2005; Khan et al., 2016). This view expresses concerns about rising inequalities in the access to, and mobilization of, increasingly valuable online social resources due to structural (educational, economic) and social (age, gender) constraints (Van Dijk, 2006; Mesch & Talmud, 2010; Poley & Luo, 2012). These inequalities generate the conditions for a new digital divide (Van Dijk, 2005; Mesch, 2012; van Deursen & Helsper, 2015) and the amplification of social inequalities. Higher education and class facilitate access to embedded online resources (Lin, 2000), and their more productive, instrumental use. Understanding the value of these resources requires a certain level of competence and cultural familiarity with them (i.e., contacts on LinkedIn, or an educational webinar on Facebook) (Micheli, 2016).

Finally, *the continuity argument* is an extension of the mirroring view. It claims that changes in the composition of social capital have affected all socio-economic groups similarly, with the exception of birth cohorts, due to a generational digital divide. Only younger birth cohorts were raised in an era in which social connections naturally

occurred in both the online and the offline worlds (Livingstone, 2008). They profusely use PDM to communicate with distant others, keep up with friends and family, and make new connections (Ellison et al., 2007). They are more likely to diversify their online resources, enrich their online network, and enjoy higher levels of social capital than older birth cohorts (Lin, 2008).

4.3 Research design

4.3.1 Hypotheses

This chapter is guided by three broad research questions: (1) Is it possible to create a composite social capital score from survey data to capture the way people construct, and benefit from, their offline and online social networks? (2) If so, how does a respondent's online social capital components relate to his or her offline social capital—does the former mirror the latter or does it replace it? (iii) Do different socio-economic groups differ in their levels of online and offline social capital? To answer these questions, I propose to test two sets of hypotheses. The first set tests the *mirroring* vs. *replacement argument* about the higher importance and peculiar composition of online social capital compared to its offline counterpart.

Hypothesis 1a: There is no significant difference in how individuals construct their online and offline social capitals. Their composition and levels are complementary.

Hypothesis 1b: There are significant differences in the content and levels of online and offline social capitals. Their composition are substitutes each other.

The second set of hypotheses expands the first one. It tests who has benefitted the most from the expansion of online socialization and the corresponding changes in the level and composition of social capital—the disadvantaged (as in the *levelling argument*), the advantaged (as in the *deepening inequality argument*), or neither (as in the *continuity argument*).

Hypothesis 2a: The disadvantaged (the least educated and the lower classes) are more likely than other members of the society to benefit from the lower barriers set on social communication by PDM, broadening their social connections, especially those of a weak and instrumental nature.

Hypothesis 2b: Better educated, upper-class people are the ones benefiting the most from the digitalization of social life, because they have the skills and social position to take a fuller advantage of the opportunities provided by the expansion of PDM.

Hypothesis 2c: The distribution of online and offline social capital is similar across socio-economic groups, except across birth cohorts, reflecting a generational digital divide.

4.3.2 Data

I test the hypotheses using cross-sectional survey data from a study conducted in 2016 by the Spanish Centro de Investigaciones Sociológicas (CIS) (Barometer-3128). The valid N used equals 2,244 respondent, aged 18 to 78. While the details on respondents' patterns of online and offline social connectivity are very rich, they do not allow replicating some popular indicators of social capital employed in the literature, such as those based on the Position Generator (Lin & Dumin, 1986; Lin et al., 2001; Van der Gaag & Snijders, 2005), or the full versions of the Resource Generator (Snijders 1999; Van der Gaag & Snijders, 2005). This is the main reason why I generated new survey indicators of online and offline social capital, based on the theoretical approach outlined in previous sections.

The first substantively important independent variable in the analyses is birth cohort. For simplicity, I recoded it into an ordinal variable with three approximately equal intervals[32] based on the year in which

[32]The motivation for recoding age into three cohort groups was to better capture the generational divide. In additional analyses aimed at testing the robustness of the results, which are available upon request, I tried alterative recodifications (i.e., into 10-year cohort groups) but the results did not substantively change.

the respondent was born: from 1938 to 1957 (aged 59 to 78 in 2016, the oldest birth cohort), from 1960 to 1979 (aged 37 to 58 in 2016, the middle-age birth cohort), and from 1980 to 1998 (aged 18 to 36 in 2016, the youngest birth cohort).

The second substantively important variable is social class, which I coded into 3-categories (upper-class, middle class, lower class). The variable is a recodification of respondent's current or last occupation (if unemployed) or the head of the family's, if inactive. I first recoded 3-digit occupations into Erikson and Goldthorpe's (EG) 7-category class schema (Erickson & Goldthorpe, 1992; Erickson, 1996; Evans & Mills, 2000). Then I recoded these 7 classes into just three. The upper classes correspond to categories I and II in EG 11-category class scheme; the middle classes, to categories III and IV; and the lower classes, to categories V, VI, and VII. Educational levels are measured on a 3-point ordinal scale ranging from low to high. The lower level is made up of respondents with compulsory education or less; the middle level, of respondents with secondary education; and the upper level, of respondents with tertiary education. In all statistical models I control for the size of the population of residency (dichotomous), gender (dichotomous), marital status (3 categories) and employment status (4 categories). All have been found to significantly predict social capital in earlier work (Beaudoin & Thorson, 2004).

4.3.3 Methods

In this section I provide detailed information on how I built the two dependent variables measuring online and offline social capital, and their four constitutive dimensions of communication intensity, network multiplexity, tie strength, and instrumental action. Prior research has shown that these dimensions are highly intra-correlated and useful for capturing the underlying concept of social capital in each domain (Lin, 2001; Van Der Gaag & Snijders, 2004; Carrillo Álvarez & Riera Romaní, 2017).

a. Indicator 1: Communication Intensity (INTENSITY)

Communication intensity refers to the density of relations that a respondent has with individuals of different types (communities) and with different frequencies. To measure it in the offline domain, I multiply the number of persons that the respondent says it has contact with in each of four categories of contacts (family, friends, neighbors, workmates, and others), times the average frequency of contact with them, and sum up the results. The number of persons in each group is established from the responses to the following questions: How many: (i) family members (including family members living with you), (ii) friends, (iii) neighbors, and (iv) workmates do you have? How often do you communicate with your (i) family members (excluding the family members living with the respondent), (ii) friends, (iii) neighbors, (iv) workmates, and (V) other people? The frequency of contact with each of these communities is measured with a 7-point Likert scale: 1-Never; 2-Rarely; 3-Several times a year; 4-Several times a month; 5-Several times a week; 6-Daily.[33]

A similar method was used to measure an individual's communication intensity in the online domain. In this case, the categories of persons were defined, not only in terms of their status (family, friends, etc.) but also of the media platforms used to communicate with them (phone, email, instant messaging, or social media). The specific questions used to calculate the number of persons with whom the respondent had contact with were: How many (i) family members, (ii) friends, (iii) neighbors, (iv) workmates, or (V) other people do you have/follow/contact in the following media platforms? (a) mobile phone (calling or SMS), (b) e-mail, (c) WhatsApp and other instant messaging applications (Line, Telegram, Snapchat), (d) social media platforms (Facebook, Twitter, Instagram, LinkedIn, etc.). These numbers were multiplied times the frequency of contact within each category, as determined by the following questions: On a normal day, how many: (a) phone calls do you make;

[33]For simplicity, I treat the ordinal scale as if it were interval. The results do not change if I use alternative scoring methods (e.g., 0, ,1, 7, 15, and 30).

(b) e-mails do you send; and (c) WhatsApp and other instant applications' messages do you send (to each categories of people)? The answers to these questions were open and numerical. The survey did not include communication frequencies in the social media, as they are typically used for one-to-many communication. Therefore, I relied on the following question to create a 7-point frequency scale: How often do you use social media? 1-Never; 2-Every few weeks; 3-One or two times a week; 4-Three or four times a week; 5-Daily; 6-Several times a day; 7-Continuously.

Formally, I used the following formulae to calculate the online and offline communication intensity indicators:

$$INTENSITY_d = \sum_{i=1}^{5} (community\ size_i\ x\ frequency_i)$$

When d=0 (offline),

$$INTENSITY_d = \sum_{i=1}^{5} \sum_{j=1}^{4} \left(community\ size_{ij}\ x\ frequency_{ij}\right)$$

When d=1 (online)

Where $i = 1,2,3,4,5$ represents family, friends, neighbors, workmates, and other people, respectively; and $j\ (DPM\ platforms) = 1,2,3\ and\ 4$ represent phone, email, WhatsApp and other instant messaging applications, and social media, respectively.

b. Indicator 2: Network multiplexity (MULTIPLE)

Network multiplexity aims to capture how much do respondents diversify the types of communities with which they have contact, either face-to-face (offline network multiplexity) or via digital media platforms (online network multiplexity). It measures the heterogeneity of respondents' social networks.

To calculate these indexes, I used some of the questions employed to capture INTENSITY, but in a different way. The indicator of offline network multiplexity was calculated as follows. If the number of a respondent's contacts in one community (e.g., family) was equal or higher than 20% of the number of offline contacts across all communities, he/she received a value of 1 (0 otherwise). I next summed up the corresponding values (1's or 0's) obtained by the respondent across communities to calculate the offline multiplexity score on a 5-point scale (min:1 and max:5). A respondent received the highest score if his/her offline social network was diversified across more communities (e.g., family), which should yield higher returns from embedded resources and higher levels of social capital. More formally, offline network multiplexity (d=0) is calculated as follows:

$$F[m1_i] = \begin{cases} 1, & if\ \dfrac{community\ size_i}{total\ community\ size} \geq 0.20 \\ 0, & otherwise \end{cases}$$

$$MULTIPLE_d = \quad Then \quad \sum_{i=1}^{5} (F[m1_i])$$

Where $i = 1, 2, 3, 4, 5$ stands for family, friends, neighbors, workmates, and other people, respectively.

To calculate the online community multiplexity indicator, I proceeded as for the offline index, now taking into account also the media platforms to define the online communities. I first calculated the number of people of a specific type that the respondent was in contact with in each media platform. A binary variable was next created for each community and platform measuring if the number of persons contacted in each community was equal or higher than 20% of the total online network size in that media platform. Next, a platform index was calculated by summing up the value of the variables for each community in each platform. Finally, an average of community sizes across platforms was calculated to produce the

online multiplexity indicator. Higher scores in the index indicate that respondents diversify their online communities in all PDM, and are interpreted as signaling higher online social connectivity.

To illustrate, Table 4-2 shows Respondent B's online community distribution matrix, as well as how their online communities are highly distributed among different platforms (the community proportions of the respondent for each platform are shown in parentheses). Next, a platform index was calculated by summing up the value of the variables for each community in each platform. For instance, the variables for Respondent B's family community are 1, 0, 0, and 0 in the phone, email, instant messaging, and social media platforms. Finally, an average of community sizes across platforms was calculated to produce the online multiplexity indicator. Higher scores in the index indicate that respondents diversify their online communities in all PDM, and are interpreted as signaling higher online social connectivity.

[Table 4-2 about here]

Formally, the multiplexity score for online communities (d=1) was calculated as follows:

$$F[m2_i] = \begin{cases} 1, & if \ \dfrac{community\ size_{ij}}{total\ community\ size_j} \geq 0.20 \\ 0, & otherwise \end{cases}$$

$$MULTIPLE_d = Platform_i = \sum_{i=1}^{4} (F[m2_i])$$

$$\text{Then} \quad \frac{\sum_{i=1}^{5} Platform_i}{4}$$

Where $i = 1,2,3,4,5$ represents family, friends, neighbours, workmates, and other respectively; and $j\ (DPM\ platforms) = 1,2,3\ and\ 4$ represent phone, email, WhatsApp and other instant messaging applications, and social media, respectively.

c. Indicator 3: Tie strength (WEAK-TIES)

The online and offline indicators of tie strength is a ratio depicting the proportion of the respondent's relationships that can be considered weak ties (those established with workmates, neighbors, or "others") relative to those constituting strong ties (held with family and friends). Family and friends are assumed to be linked to each other through strong ties; workmates, neighbors, and other social connections; through weak ones.[34] The indexes (one for the online domain and another for the offline one) are calculated as follows, using the same questions reported above for the indicators of intensity:

$$WEAK-TIES_d = \frac{\sum_{i=3}^{5} (community_i \; x \; frequency_i)}{\sum_{i=1}^{2} (community_{\mathrm{i}} \text{ x } \mathrm{frequency_i})}$$

$$\text{when d} = 1 \text{ (offline)},$$

$$WEAK-TIES_d = \frac{\sum_{\mathrm{i=3}}^{5} \sum_{\mathrm{j=1}}^{4} (\mathrm{community_{ij}} \text{ x } \mathrm{frequency_{ij}})}{\sum_{\mathrm{i=1}}^{2} \sum_{\mathrm{j=1}}^{4} (\mathrm{community_{ij}} \text{ x } \mathrm{frequency_{ij}})}$$

$$\text{when d} = 0 \text{ (online)}$$

Where $\mathrm{i} = 1, 2, 3, 4, 5$, represents family, friends, neighbors, workmates, and other; and $\mathrm{j\ (DPM\ platforms)} = 1, 2, 3, \text{and } 4$, represents phone, email, instant messaging applications, and social media, respectively.

[34]In building the indicator I assume that there is a correlation between the strength of the ties and the type of community in which they are generated (Burt, 1984; Putnam, 2000; Ellison et al., 2014). This assumption may not be realistic in all cases. For instance, one's relationship with a workmate (here presumed to be a weak tie) may be stronger than another with a family member (here presumed to be a strong tie). However, it is quite possible that the respondent may have reported this workmate as a friend. The assumption is realistic on the average, as indicated by the frequency of communication within each community, which is higher in communities assumed to be linked by strong ties.

d. Indicator 4: Instrumental actions (INSTRUMENTALITY)

The indicators of instrumentality aim to capture the instrumental vs. expressive purpose of respondents' communications with others in the off- and on-line domains. The offline instrumentality index is a ratio of the number of persons that the respondent contacts in his/her social network for instrumental motives such as looking for a job or borrowing money, to the number of people he/she contacts for expressive purposes, such as obtaining emotional or health support. By expressive uses I mean those in which the interaction constitutes an end by itself, rather than a means to attain further ends. The index is based on the following question: Approximately how many people do you have in your circle to: a) help you find a job; b) lend you money when you need it; c) talk with you when you have a problem, feel depressed, or are unhappy; or d) take care of you when you are sick? Following Lin's work (2001), a and b classified as instrumental actions; c and d, as expressive ones.

The online instrumentality index is also a ratio, in this case, of the instrumental use(s) that respondents make of each platform (e.g., to get information related to work, make new friends, look for jobs, etc., up to 14 possibly different instrumental uses) to the expressive uses that he/she makes (e.g., to communicate with family, friends, etc. up to 11 possibly different uses of this kind).[35] Not all 25 uses listed in the questionnaire were available in all media platforms (e.g., sharing photos was not a valid motive to engage in a phone conversation). On average, there were about 12 motives which the respondents could choose among for each PDM (many overlapped across several media), of which about half could be classified as instrumental and the other half as expressive. I followed the same criteria used in the offline index to classify as either instrumental or expressive the same motives that appeared in both domains. To avoid an arbitrary classification of the remaining motives, I conducted an exploratory

[35]Graphs A1, A2, A3, and A4 in the appendix show the distribution of the main motivations by PDM.

principal component analysis for the social media platform, where they were all available to respondents. As shown in Table A1 in the appendix, the items loaded cleanly into three dimensions: (i) expressive motives (to communicate with people I cannot frequently see; to connect with others in my circle; to share/follow photos and videos; to be aware of what acquaintances do and share; to "keep up" with information and plans that my connections share online), (ii) create new connections (to make new friends; to look for partners; to organize an event), (iii) instrumental motives (to look for information related to professions, politics, or culture; to look for a job; to have fun or hang out with others). I summed up the number of items that the respondent chose with high loadings in the second and third dimensions of the principal component analysis to fill up the numerator of the online version of the instrumentality index. Then I divided this number by the sum of the choices made among those with high loadings in the first component.

Formally, the offline and online indicators of instrumentality were computed as follows:

$$INSTRUMENTALITY_d = \frac{\sum_{a=3}^{5} \text{community size}_a}{\sum_{a=1}^{2} \text{community size}_a}$$

$$\text{when } d = 0 \text{ (offline)},$$

$$INSTRUMENTALITY_d = \sum_{j=1}^{4} \frac{\text{Instrumental actions}_j}{\text{assertive actions}_j}$$

$$\text{when } d = 1 \text{ (online)}$$

Where $a = 1, 2, 3, \text{and } 4$ represents the total number of people that the respondent has a connection with for health support, emotional support, financial support, and job support, respectively; and $j = 1, 2, 3 \text{ and } 4$ represents phone, email, WhatsApp and other applications, and social media, respectively.

e. Construction of social capital: Confirmatory Factor Analysis (CFA)

To generate the two indicators of social capital for the online and the offline domains, I applied a confirmatory factor analysis (CFA) using the lower-level indexes of intensity, multiplexity, tie strength and instrumentality generated as inputs for each domain. CFA aims to validate an a-priori, hypothesized structure of correlations between the components making up the online and offline social capital constructs (Dyer et al., 2005; Zhang & Wan, 2005; Mathisen et al., 2006; Asparouhov & Muthén, 2008). The null (mirroring) hypothesis is that the constituent components of online and offline social capital have the same structure of correlations; the alternative (replacement) hypothesis, that they do not.

f. Testing the mirroring vs. replacement hypotheses: Multilevel CFA

One problem in testing the mirroring vs. replacement hypotheses with CFA is that the assumption that observations in the online and offline domains are independent may not hold, because the same individual contributes to the measurement of online and offline social capital, as in repeated measures datasets. Because the components of online and offline social capital are likely to be correlated within individuals, the total variance of each indicator and their covariance will be influenced by both between and within individual variations (Dyer et al., 2005). To solve the contamination of the two sources of variation and discard that the similarities between online and offline social capitals may just reflect respondents' autocorrelation, I applied a multilevel CFA (ML-CFA). This technique separates within and between individual factor structures and allows testing for the equivalence (invariance) of the social capital indicators in the online and offline domains (Longford & Muthén, 1992; Nezlek, 2001).

Following Muthén's (1991, 1994) guidelines, I first conducted a conventional CFA of the total correlation matrix, assuming independence among the indicators. Then, I estimated the indicators' intra-class correlations (ICC) to assess if an ML-CFA was necessary (Koch, 1983). Next, I conducted separate factor analyses from the

estimated within and between correlation matrices to assess if the online and offline indicators contributed similarly to defining the social capital construct. Finally, I tested the *mirroring* versus *replacement hypothesis* by assessing if measurement invariance was a necessary condition to compare online and offline social capitals. In line with the literature, I used four measurement invariance models: configural, metric, scalar, and partial (Vandenberg & Lance, 2000). The configural invariance model allowed online and offline social capitals to differ in their levels (intercepts) and compositions (loadings/intercepts). The metric invariance model (Van De Schoot et al., 2015) forced the factor loadings to be equal over the online and offline dimensions. Scalar invariance (Vandenberg & Lance, 2000; Muthén & Muthén, 2012) required both the factor loadings and the intercepts to be equal in the online and offline domains. Finally, the partial scalar variance model (Byrne et al., 1989) constrained some factor loadings to be invariant and freed others.

g. Testing the levelling vs. deepening inequalities argument

To test if the distribution of social capital across socio-economic groups differs in the online and offline domains (Baltagi, 2005), I compared respondents' scores in the social capital indicators generated previously with factor analyses.[36] The comparison was carried out within a multi-level regression format allowing an individual's level of social capital to change across domains. Next, I observed how much the differences between respondents' online and offline levels of social capital varied after considering the birth cohort, educational level, and social class to which they belonged (plus controls).

[36]I estimated all factor scores and variances using maximum likelihood estimation via IBM's structural equation modeling software AMOS.

4.4 Findings

4.4.1 Inspection of indicators and intra-class correlation coefficients

Table 4-3 shows that the means and the standard deviations of the indicators capturing the different dimensions of social capital range from 0.18 to 3.62 and 0.01 to 150.2, respectively. Skewness and kurtosis measures are within a reasonable range of -1 and +1, except for the online and offline indicators of INTENSITY which are significantly over 1. Because the factor models assume normal distributions, I log-transformed the scores of the indicators to increase their normality.

[Table 4-3 about here]

Next, I inspected the indicators' intra-class correlation coefficients (ICC) (i.e., the correlations of each indicator with each other in and across the online and offline domains) to assess if there was an interdependence problem with the data. Coefficients above 0,05 are interpreted in the literature as indicating that the data are independent (Dyer et al., 2005; Wolf et al., 2013), i.e., that most of the variance is between subjects and there is no need to conduct an ML-CFA.

The ICC values ranges between 0.02 and 0.65, with most having values above the 0.05 cutoff (see Table A2 in the appendix). However, two ICC are below that level, indicating that the within-individual variance component might be important and lead to different measurements of social capital in the online and offline domains. The use of a multilevel approach is therefore recommended (Raudenbush et al., 1991).

4.4.2 Confirmatory multilevel factor analysis

After the initial inspection of ICCs, I carried out two separate, conventional factor analyses with the, respectively, four online and four offline sub-indicators of social capital. A one-factor solution explained approximately half of the total variance in both domains,

with eigenvalues exceeding 1 (Byrne, 2012; Brown, 2015). For the between-individual level, I performed an unconstrained factor analysis with the 8 sub-indicators.

Figure 4-1 visually shows the unconstrained factor loadings of the sub-indicators at the within- and between-individual levels. For the sake of convenience, I present standardized loadings. The unit loading identification (ULI) constraint is set to 1.00 for the weak-ties indicator on all factor analyses. The rest of the loadings range: from 0.25 to 1.07 for the overall measure of social capital; from 0.60 to 1.00 for the online version; and from 0.31 to 1.16 for the offline one. Generally, the offline indicators have higher loadings than the online indicators. The indicators of intensity and instrumentality have the strongest associations with the online and offline forms of social capital, i.e., they tend to dominate its forms.

[Figure 4-1 about here]

Two indicators of social capital appear to have different meanings—show higher factor loadings—at the online and offline domains: the multiplexity and instrumentality indicators. Because these differences might make it more difficult to compare them, I next tested for the invariance of measurements across the online and offline social capital constructs, using a cross-dimensional model comparison test (Byrne, 2012). The compared models are shown in Table 4-4.

The measures of fit of the two CFAs independently conducted to capture online and offline social capital are reported at the top of Table 4-4. Generally, both have acceptable values in all measures. The goodness of fit increases in the configural model (Model 1), especially when using Bayesian measures of fit, such as the AIC and the BIC (the smaller their value, the more probable the model is). In this configural model, both the average levels of social capital in the two domains (the intercepts) and the contribution of each indicator to each (the slopes) are allowed to vary. This is the baseline model against which the fit of simpler models with partial measures of invariance are contrasted (Asparouhov & Muthén, 2008). Model 2 forces the loadings to be the same in the online and offline domains.

Model 3 forces both the loadings and the average levels of social capital (intercepts) to be the same. Models 4 and 5 allow the intercepts and either the indicator of multiplexity or instrumentality to vary in each domain.

[Table 4-4 about here]

Models 1 and 5 have the lowest AIC/BIC values and are the best models in terms of fit. The non-Bayesian fit indices are slightly better in Model 1 than in model 5, but the differences are very small and inconsistent across all the statistics. Model 5 indicates that the instrumentality indicator does not capture the same underlying concept in the online and offline contexts and has more weight in the former. I conclude that a model considering individual variance fits better than a model in which the loadings are constrained to be equal for online and offline connections. I can thus reject *Hypothesis 1a*, which expected the composition of online social capital to be the same as—to mirror—the one offline, and accept *Hypothesis 1b*, which expected them to differ, especially regarding the importance that the instrumentality of an individual's communications has in defining his/her level of social capital—higher in the online domain.

4.4.3 Multilevel regression analysis

I next analyze the impact of birth cohort (baseline: oldest), social class (baseline: lower class), and education (baseline: least educated) on the differences in individuals' online and offline social capitals, net of controls. To do so, I used multilevel models for repeated measures, in this case, of individuals' social capital across the online and offline domains. The results of are shown in Table 4-5.

[Table 4-5 about here]

The regression intercept in the baseline model shows the estimated mean value of offline social capital (0, by normalizing constraints). The beta coefficient shows the difference between individuals' online and offline levels of social capital. It is not significant, but I know from the previous analyses that this apparent equality hides key

differences in the composition of each form—more instrumental in its online manifestation.

In the next model, birth cohort and the interaction between birth cohort and the online domain are added to the baseline model. The intercept is the estimated level of offline social capital of the oldest birth cohort. after adding the other regressors and the controls, the differences between the two dimensions emerged. As expected, (due to the effects of aging on individuals' sociability), this birth cohort has less offline social capital than the youngest birth cohort, but about the same than the middle-aged cohort—see main effects for birth cohort. In this older cohort, the estimated level of an individual's social capital is significantly lower in the online than in the offline realm (see main effect for the online domain). There are no differences between the two domains in the middle-age group, while in the youngest cohort, the online component is more important. To sum, the effect of cohorts on the online social capital level is positively related for those younger than 38 years old and negatively related for those older than 38 years old. Put differently; it is only among the young that online social capital has more weight than offline social capital.

The results confirm the generational divide in the social returns that individuals obtain from their online and offline communications. Younger people extract much more from their online connections; the oldest, from their offline ones. This divide remains even after adding to the model education, social class, and the interactions between these variables and the online domain, plus the controls—see full model shown in Table 4-5. It can be visualized in panel A) of Figure 4-2, which shows the predicted differences across birth cohorts in their online and offline social capitals at the other covariates' means.

[Figure 4-2 about here]

The oldest birth cohort relies much more heavily on offline connections to generate social capital, and the youngest, on online contacts. Since—I saw in the previous section—the composition of online social capital is more dominated by instrumental actions, the

youngest birth cohort's heavier reliance on online connections represents an advantage in the mobilization that they can make of social resources. In sum, regarding the differences in the composition of social capital across social groups, the results for birth cohort indicate that this composition has differed across birth cohorts, supporting deepening online inequalities among the birth cohorts.

As for education and social class, their main effects in the Full model of Table 4-5 confirm that the highly educated and the middle and upper classes have higher offline social capital than the lowly educated and the lower classes. The interaction effects between education or social class and the online domain allow adjudicating between the *continuity*, *levelling*, and *deepening inequalities* hypotheses. They show that these differences increase in the online world. Panels B) and C) in Figure 4-2 visualize these patters by plotting the estimated levels of online and offline social capitals for each socio-economic group at the means of the other covariates.

The differences in the levels of online and offline social capital increase at higher educational levels and social classes, confirming *Hypothesis 2b* about the widening of educational and class inequalities in social capital brought about by the expansion of digital media. Several reasons might explain it: from the higher cognitive abilities and technological literacy of the educated, to the higher resources that the wealthy have to access PDM. And since—I found—online social capital differs in important respects from its offline counterparts, the increasing divide is also one in the use that socio-economic groups make of their social connections—more instrumental in the online world among the advantaged.

4.5 Discussion, conclusions and limitations

Advances in technology, along with individualism and globalization, mark some of the major social changes I have witnessed in the last decades. An ever-increasing number of people are turning to their computers and mobile devices to nourish their social connections and receive a wide spectrum of social support. Virtual social connections break traditional and geographical boundaries by freeing people from having to interact face-to-face, providing access to more social

resources. However, some questions remain. Do the access and mobilization of social resources differ in the online and offline domains? In other words, are the different elements of social capital mixed in different ways in each domain, providing different benefits to people? If so, to what extent does the new mix and the expansion of online activities alter traditional social capital inequalities across birth cohorts, educational groups, and social classes?

In this chapter, I aimed to answer these questions by investigating how people benefit from their social connections in the online and offline domains. I examined in which ways the properties of the digital world affect both the returns from social capital and their distribution across society. There are two strands of literature addressing these issues. The first deals with the composition of social capital, viewing online social capital as either a reflection or a replacement of the offline one. The second strand focuses on the digital divide, on who has benefitted the most from changes in the composition of social capital. There are three arguments in this second strand. The first sees the shift towards online forms of communication as having been democratic and having given access to the disadvantaged to forms of social capital previously reserved for the advantaged (the *levelling argument*). The second argument sees the shift as having benefitted the advantaged by multiplying their weak ties and limiting the use that the disadvantaged make of online networks to strong ties, reinforcing their segregation (the *deepening inequalities argument*). The third argument sees the changes in the composition of social capital as having affected all socio-economic groups similarly, except birth cohorts, reflecting a generational digital divide (the *continuity argument*).

To explore these issues, I focused on the case of Spain, a country with traditionally high levels of inequalities (Brandolini & Smeeding 2009) that has experienced rapid socio-economic and cultural transformations in the last decades. Spain is an excellent case to explore the depth of the generational divide brought by the expansion of PDM, and its consequences on social inequalities. I analyzed a very rich survey conducted in 2016 by Spain's main public opinion institute on Spaniards' patterns of online and offline communication. Using this dataset, and guided by Lin's (2001) conceptualization of

social capital, I adapted the questionnaire to generate two composite indicators of respondents' access and mobilization of offline and online social resources. I next tested if the indicators expressed the same meanings, i.e., if the composition of online and offline social capital mirrored one another in the intensity of communications, the heterogeneity of social networks, the strength of the ties connecting people, and the instrumentality of the connections.

The results confirmed that online social capital differs substantially from its offline counterpart regarding people's mobilization of social resources and, more specifically, in the instrumental use they make of social contacts—higher in the online domain. Even though there are strong synergies between the online and offline worlds, the empirical analyses confirm that they do not mirror each other in all of their components and, therefore, that they can be investigated as separate entities. The result also confirmed the importance of what has been coined as the *third digital divide*, the "*gap in individuals' capacity to translate their internet access and use into favorable offline outcomes*" (van Deursen & Helsper, 2015, p.29).

The results showed that younger, more educated, and upper-class people have benefitted more from the digitalization of social life, for in these groups social capital returns are higher online than offline. On the contrary, older, less educated, and poorer individuals still rely on traditional and less instrumental forms of social communication with others as their main vehicle to socialize. Thus, the results confirmed that social inequalities, rather than having declined as a consequence of the expansion of digital media, are increasing. The advantaged are benefiting the most from this expansion and from the higher role played by the digital media as instruments to attain a wider range of socio-economic ends.

The findings also highlighted that most of the differences across birth cohorts in their reliance on online forms of social capital (as against its offline forms) disappear after considering differences across classes and educational groups in their reliance on different forms of social capital in the regression analyses. Hence, one could argue that part of the reason why the educated and the upper classes rely more on online social capital is because they are concentrated in the

younger cohorts, the ones making more use of this form of social capital.

Whether the results of this chapter are a reflection of the recentness of Spain's digital transformation and higher than average social inequalities and are thus inapplicable to more digitally mature societies (Lehdonvirta & Räsänen, 2015), I cannot tell. I ignore how country-level factors shape cultural preferences and social relations. Nor do I know if the typical use of PDM (e.g., the ways people use instant messaging applications) varies across countries. Thus, it remains open to interpretation whether the mixes of components identified in this chapter as characterizing social capital in the online and offline domains are the same in all societies, and if the socio-economic factors that I identified as explaining their distribution are equally important. It shall be the subject of future research.

One limitation of this chapter rests in that it assumes that it measures the effect of social and technological changes on the composition of social capital across birth cohorts. However, birth cohorts' effect is a mix of age and period effects, each hinting at a different mechanism mediating relationship between social change and social capital. For instance, it might be that people change their preferences for alternative communication channels over the life-course (age effect). Or that societal and technological changes affected differently people of different ages. Also, there is a possibility that birth cohorts may capture both secular changes towards a more instrumental use of social capital attached to the rise of the digital personal media, or the more instrumental value that young people attach to their social connections compared to the old. Future research focusing on generational replacement would benefit from including a temporal dimension (a quasi-panel approach) in order to disentangle age from period effects.

Another limitation of this research is that it is based on respondents' subjective recollections of the composition of their online and offline social networks, such as the number of personal contacts they have, how frequently they communicate with them, or the types of communities to which they ascribe the people whom they have contact with (e.g., friends or acquaintances). The choices that the

survey designers made regarding the collection of respondents' network data may have affected the inferences I made about the structure of their global social networks. For example, the number and types of contacts reported by the respondents in the survey may have been truncated and biased towards closer/stronger ties due to homophily, as in similar surveys (McPherson et al., 2001; Lin & Erikson, 2008). Likewise, the assumption that respondents are linked to some categories of people (e.g., acquaintances) by weak ties may be less realistic in online contexts in which such ties tend to be more redundant and provide less exclusive access to other networks than offline (de Meo et al., 2014). These limitations may have affected my ability to detect more differences in the various components of social capital between domains, or to assess the true extent of the digital divide across socio-economic groups. And yet, provided that these biases affect similarly all individuals and groups, their neutralization is unlikely to alter my main conclusion—that the digitalization of social life is contributing to a widening of social inequalities, by providing the advantaged with higher and more instrumental forms of social capital.

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Table 4-1. Adaptation of Lin's social capital asset in the network (2001; p14).

Focus	*Measurement*	*Indicators*
Embedded resources	Contact resources	***Communication intensity*** Network extensity and communication intensity
		Network Multiplexity Variety/composition of contact resources
Network locations	Strength of tie	***Weak ties network*** The proportional size of weak ties
	Network resources	***Instrumental actions*** Total contact of resources utilized in instrumental actions

Table 4-2. An example to illustrate how online (media) multiplexity score was calculated.

Respondent B	*Phone (j=1)*	*Email (j=2)*	*WhatsApp and other applications (j=3)*	*Social Media (j=4)*	*Platform overlap*	*Online Network Multiplexity*
Family (i=1)	1 (80%)	0 (0%)	0 (10%)	0 (10%)	1	
Friends (i=2)	1 (20%)	0 (10%)	1 (90%)	0 (10%)	2	**1.25**
Neighbors (i=3)	0 (0%)	0 (0%)	0 (0%)	1 (80%)	1	(1+2+1+1)/4
Workmates (i=4)	0 (0%)	1 (90%)	0 (0%)	0 (0%)	1	

Table 4-3. The descriptive analysis.

Dimension	*Indicator*	*Mean*	*Min*	*Max*	*SD*	*Skewness*	*Kurtosis*
Offline	INTENSITY	10,1	0	215	15,0	5,4	20,8
	Family	3,0	0	107	4,9	1,5	8,9
	Friends	3,2	0	105	6,7	9,2	12,9
	Neighbors	0,8	0	174	5,7	8,3	82,2
	Workmates	2,0	0	215	8,8	7,3	34,2
	MULTIPLE	1,8	0	4	0,7	0,1	2,7
	WEAK-TIES	0,3	0	1	0,26	0.3	2,2
	INSTRUMENTALITY	3,61	0	1	0.2	-0,1	1,3
Online	INTENSITY	109,0	0	4880	150,2	4,9	27,7
	Family	20,2	0	365	29,1	2,5	8,9
	Friends	44,8	0	1160	99,2	5,2	21,9
	Neighbors	1,0	0	273	8,1	21,3	82,2
	Workmates	19,2	0	4880	186,2	11,3	72,2
	Others	23,8	0	3880	152,3	19,3	78,4
	MULTIPLE	0.93	0	3	0.6	0,2	2,3
	WEAK-TIES	0,19	0	1	0,1	0,9	3,3
	Phone	0.25	0	1	0,2	0,9	2,9

(Continue on the next page)

	E-mail	0.11	0	1	0,3	1,3	2,5
	WhatsApp and other	0.19	0	1	0,2	1,2	3,6
	Social media	0.13	0	1	0,2	1,3	4,2
	INSTRUMENTALITY	0.18	0	1	0,1	0,8	1,2
	Phone	0.08	0	1	0,1	1,2	2,9
	E-mail	0.10	0	1	0,1	0,2	1,9
	WhatsApp and other	0.14	0	1	0,3	1,3	1,2
	Social media	0.42	0	1	0,3	0,3	1,2

Note: M = Mean, SD = Standard Deviation; MULTIPLE stands for Network Multiplexity; INTENSITY for Communication; Intensity. INSTRUMENTALITY for Instrumental actions; and WEAK-TIES for Strength of Ties.

Figure 4-1. A two-level CFA for social capital.

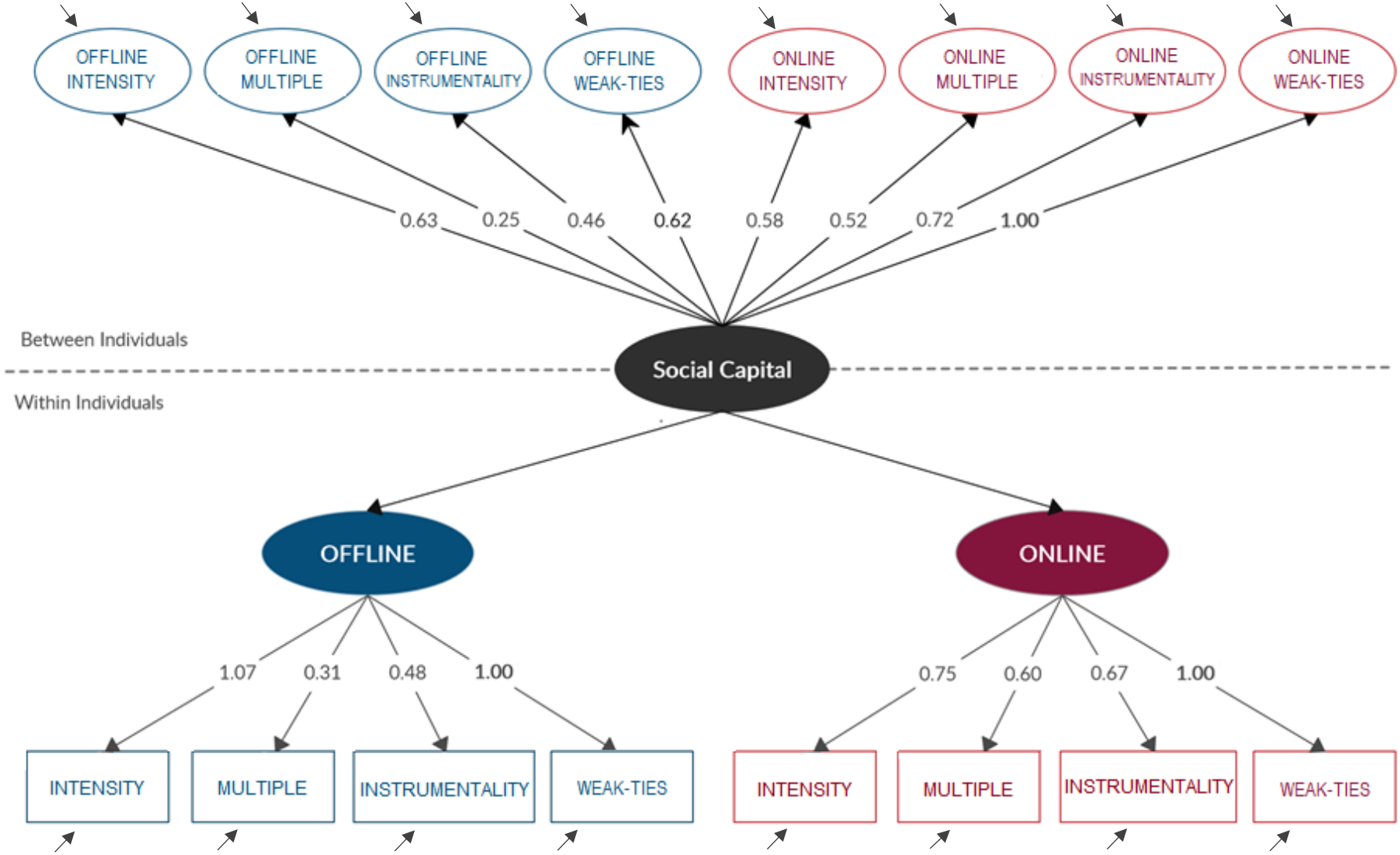

Table 4-4. Measurement invariance fit indices.

	χ^2	*RMSEA*	*SRMR*	*CFI*	*TLI*	*AIC*	*BIC*
All Groups	307.952 (2)	0.094	0.630	0.908	0.731	394,267	339,568
Online Social Capital	144.420 (2)	0.054	0.021	0.930	0.791	266,114	266,798
Offline Social Capital	126.424 (2)	0.168	0.059	0.918	0.755	212,864	213,550
Model 1: Configural (free all parameters)	140.780 (4)	0.086	0.051	0.922	0,769	172.880	172.433
Model 2: Metric (loadings invariant)	159.62 (7)	0,102	0.056	0.910	0,846	185.627	185.686
Model 3: Scalar (loadings + intercepts)	259.549 (8)	0,085	0.082	0.820	0,699	373.540	373.594

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Model 4: Partial scalar (MULTIPLE)	166.493 (5)	0,085	0.058	0,909	0,763	195.433	171.155
Model 5: Partial scalar (INSTRUMENTALITY)	141.797 (5)	0,078	0.058	0.910	0,808	171.032	170.865

Note: CFI: Comparative fit index, TLI: Tucker-Lewis index, RMSEA = Root mean squared error of approximation, SRMR= Standardized root mean square residual, INS: Instrumentality. Acceptable CFI and TLI values are 0.85 or higher, those of RMSEA and SRMR are 0.08 or smaller. The smaller AIC and BIC values, the more probable the model is (Muthén, 1994; Muthén & Satorra, 1995; Hu & Bentler, 1999; Hox, 2003).

Table 4-5. Multilevel regression models of social capital.

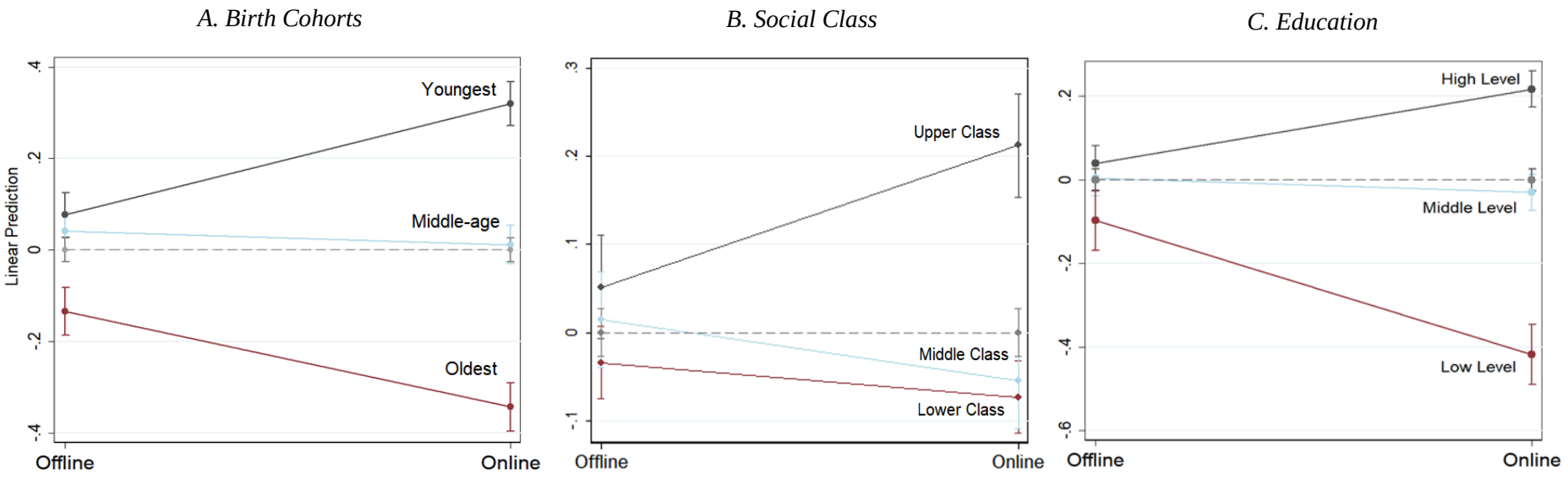
	Base Model		*Birth Cohort*		*Full Model*	
	ˆβ	s.e.	ˆβ	s.e.	ˆβ	s.e.
Online Social Capital (Ref: Offline)	-0.01	(-0.0)	-0.29***	(4.1)	-0.61***	(0.2)
Cohort (Ref: Oldest)						
Middle age			0.02	(1.1)	0.03	(0.1)
Youngest			0.29***	(2.6)	0.211*	(0.4)
Online##Cohort (Ref: Offline and Oldest)						
Online#Middle age			0.26***	(3.2)	0.27***	(3.6)
Online#Youngest			0.67***	(4.0)	0.45***	(4.5)
Education (Ref: Low Level)						
Middle					0.03	(2.1)
High					0.15**	(1.7)
Online##Education Ref: Offline and Low Level)						
Online#Middle Level					0.21***	(2.5)
Online#High Level					0.50***	(2.4)
Social Class (Ref: Lower Class)						
Middle Class					0.01	(0.3)
Upper Class					0.06***	(0.6)
Online##Social Class (Ref: Offline and Lower Class)						
Online# Middle Class					0.23***	(3.6)
Online# Upper Class					0.28***	(3.7)

(Continue on the next page)

Gender (Ref: Male)						
Women						
Employment Status						
(Ref: Employed)						
Housewives					-0.48***	(-5.9)
Pensions (not worked before) or unemployment					-0.55***	(-6.3)
Retired (worked before)					-0.40***	(-10.8)
Student					0.08	(-8.1)
Marital Status						
(Ref: Single)						
Married					0.19	(0.8)
Widowed or Divorced					0.39	(2.6)
Size of Residency					-0.03***	(3.4)
Intercept	0.001	(0.0)	0.26***	(7.0)	0.77**	(1.4)
N	4488		4488		4488	
Pseudo-R2	0.01		0.15		0.26	

Note: Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.010.

Figure 4-2. Predicted distribution of social capital in the online and offline domains across main socio-economic groups.



5 CONCLUSION

One body of prior research has addressed the shift in cultural preferences and social relations from a structuralist perspective. This view relates the formation of cultural preferences to changes in the social class structure and the education system. On the other hand, numerous other studies have followed an individualistic approach in answering how cultural change relates to social change. This body of work has highlighted the role of social change in providing for greater freedom of expression, individualism, and equality, which have in turn fundamentally altered cultural preferences and social relations. However, the extent to which social change affects cultural change at both the individual and contextual levels remain a relatively unexplored topic.

To address this shortcoming in the current sociology literature, this dissertation sheds light on whether recent socio-economic changes have affected all members of society in the same way. To the best of my knowledge, it is the first comprehensive empirical attempt to examine the extent to which social change affects cultural preferences and social relations, by disentangling the cultural effects of social change and social structures. Furthermore, I have utilized a rich variety of novel methodological analyses that have not yet been applied to this topic. In doing so, I have aimed to contribute to the current body of research, establish a bridge between the structural and individualistic approaches to the formation of culture, and prime the field for further sociological study.

In this dissertation, I used birth cohorts as a proxy for social change, arguing that differences across birth cohorts may help explain the diverging empirical results found in the literature. Older birth cohorts tend to consider culture and social relations as a status marker because of the period in which they grew up, wherein materialistic values were more prominent. As a result, they were, and continue to be, more inclined to consume cultural genres relevant to their social class and education level. In contrast, younger people are less likely to conform to such a pattern. Their cultural preferences are not

constricted to their positions within the social structure, due to technological advances and a shift in values towards more egalitarian and individualistic forms of cultural consumption. Regarding the changes in social structures, younger birth cohorts enjoy better educational and job opportunities and experience a higher degree of social and geographical mobility than their older counterparts (Breen & Luijkx, 2004; Breen & Jonsson, 2007). Revisiting the role of social change, using birth cohorts as a proxy, I have aimed to explore a variety of associations among birth cohorts and social structures. By employing several methods to parse how social change affects the relationship between social structures and cultural preferences, the methodological orientation of this dissertation seeks to offer insight into cultural stratification studies.

Across the three chapters of this dissertation, I studied the mechanisms through which social change and social structure contribute to the formation of culture. Although each chapter focuses on a separate topic, they all share a common research goal: to analyze the extent to which the relationship between social change and structural change plays a role in the formation of culture. I therefore focused on a number of interrelated dimensions of culture to explain the relationships among social change, social structures, and cultural change. To this end, I utilized three important concepts in sociology: cultural taste, cultural omnivority, and online/offline social capital.

The first two chapters center on the aesthetic expressions and symbolic meanings of culture. In the first chapter, I provide some insights into the formation of genres and cultural tastes, expanding conventional approaches by inquiring into the conditions under which cultural tastes differ, as well as the moderating roles of social structures in the relationship between social change and cultural taste. The second chapter broadens our understanding of culture as investigated in the first chapter, shifting the focus from genre and taste to cultural activities. In this chapter, I pieced together the current arguments explaining the emergence of cultural omnivority (i.e., people's cultural engagement level), relating them to the discussions mentioned in the first chapter. To examine this relationship, I tested

the mediating roles of social class, cognitive abilities, and social networks in the relationship between social change and omnivority.

The last chapter, on the other hand, hones in on social change from the perspective that advancements in digital media platforms have fundamentally changed the way people construct and use their social connections, in both the online and offline worlds. I therefore expanded the chapter's secondary focus on social networks by analyzing changes in the formation of social connections in contexts undergoing socio-technological change. To do so, I introduced a new approach for the measurement of social capital based on Lin's (2006) conceptualization. I then analyzed the extent to which online and offline social capitals differ across socio-demographic groups. Finally, I categorized research outcomes by the degrees to which online and offline social capital facilitate one another, and to what extent properties of the digital divide affect this linkage.

Throughout the three empirical chapters, I focused on how people spend their leisure time and develop and maintain their social relations, and how their cultural preferences and interpersonal connections strongly relate to social change. Overall, the findings show that changes in values and opportunities primarily shape how people spend their leisure time, as well as how they develop and maintain their social relations. The empirical results of the first two chapters highlight a cultural shift from distinctions in social structures (i.e., intellectual vs. traditional taste, and a univore cultural pattern) to a fictional taste and an omnivore cultural pattern. Furthermore, this occurs partly independently of structural changes. It points towards a convergence in taste and cultural preferences, driven by the commercialization of culture and a shift in values. However, the findings also show that the mediating role of education on the relationship between social change and cultural change is more significant than other factors, such as social class and urbanization. In the last chapter, I show that the composition of social capital differs across the online and offline constructs. In addition, higher online social capital among younger, more highly educated, and more upper-class people are widening the social capital gap between generations and socio-economic structures.

In sum, this dissertation presents strong evidence of changes in cultural preferences, and how the formation of social and cultural connections relate to social change and structural factors. The results also attest to the relevance of addressing the social change phenomenon from a social stratification perspective. In doing so, this dissertation advances our understanding of modern life by presenting evidence of our preferences and relations.

The following section highlights the most important findings of this dissertation's three chapters, linking them to current theoretical debates within the literature.

5.1 Exploring the formation of genres and the moderating roles of social structures on cultural tastes

Although the literature defines social structures as the main determinant of cultural taste, the relationship between social change and culture has, curiously enough, rarely been addressed. It remains unclear to what extent social change affects social structures, which in turn affect cultural tastes. However, present-day class differences and the understanding of culture and social life drastically differ today compared to in the past. Thus, in this chapter, I attempt to fill the gap in the research by presenting and testing the validity of the two main theoretical trends dominating the literature, which explain the differences in cultural tastes. These two trends are, namely, the *structuralist view*, which describes differences in individuals' cultural preferences as a consequence of structural transformations in the class, educational, and rural/urban composition of society; and the *individualistic view*, which reasons that these differences stem from personal shifts in cultural preferences over time.

The first chapter begins by questioning the formation of cultural genres. Remarkably, cultural genres accommodate new patterns and meanings; however, this potential complication may render genre patterns an incomparable measurement. To avoid such problems, I

used a sophisticated classification method—fuzzy clustering—which considers the symbolic meanings attached to genres that are unlikely to be univocal and socially constructed at both the individual and collective levels. Therefore, this study makes a major contribution to sociological cultural research, by freeing the classification of culture from its binary definition as high/low brow, and considering the values diffusing within society.

I used Lena and Peterson's (2008) approach to justify the classification of cultural, intellectual, traditional, and fictional tastes. The findings show that fictional taste—as an emergent culture correspondent with changes in values and cultural production—is more likely to be embraced by the younger birth cohorts. Regarding the class-bounded understanding of culture, we might speak of two different cultural tastes—intellectual and traditional—where class and education still play a prominent role in shaping cultural taste.

In addition, it appears that a fictional taste is more accepted among some of the classes (i.e., skilled workers, unskilled manual workers, and farmers & farm laborers, net of other variables. The argument is that possessing a fictional taste as an individual manifestation fosters social cohesion with others and embraces the idea of being "*in the new*." Furthermore, all social groups are embracing a fictional taste in larger proportions, independently of their relationship to the changes in social structures. However, other findings point to the sustained importance of social class and education in distinguishing an intellectual taste from a traditional taste, as well as the emergence of a distinct taste among the new middle-class people, a targeted consumer group of modern mass culture.

My research design also permitted me to explain away the effects of the birth cohort on taste through structural mediators (class, education, and place of residence). Thus, I tested the possibility of explaining cultural shifts in taste through demographic transformations in the socio-economic structure. Though the findings confirm the salience of education and class in shaping cultural taste, they also show, albeit to a lesser extent, that independent changes over time explain most of the differentiation in cultural taste.

Overall, I interpret these findings as evidence that both paradigms — the *individualist* and the *structuralist view*—are partly valid, highlighting a need to combine the two models to provide a better account of cultural change (although the birth cohort effect was stronger). Of course, social structures do not independently mediate the effect of social change on cultural taste. That is to say, the relationship between structure and agency is more an interplay than a contraposition. Thus, the findings strengthened the dialog between the agency vs. structure visions of life, whereby people's social positions may have a strong influence on their cultural life without ever precluding them from modifying their cultural preferences over the life course.

5.2 Analyzing the mechanisms that explain the emergence of cultural omnivority

The second chapter of this dissertation aimed to broaden the first chapter's focus from the cultural genres (jazz & blues, movies, etc.) to cultural activities (listening to music, shopping, etc.). To do so, I analyzed the formation of cultural activities using cultural omnivority, a concept created by Peterson and his colleagues; cultural omnivority captures an individual's degree of cultural participation.

Previous research on this topic broadly investigates the relationships between social class and cultural omnivority. However, the underlying mechanisms predicting the different patterns of omnivority remain under-examined in sociology. Throughout this chapter, I sought to explain the mechanisms through which social change and social structures explain the level of cultural omnivority.

Drawing on the sociology of culture literature presented in the first chapter, I enriched the debate on the emergence of omnivority by providing comprehensive models to synthesize theoretical frameworks and assess the influences of social change and other socio-economic characteristics. The empirical results reported in Chapter 2 for a representative sample of Spanish people illustrate

birth cohort differences in the omnivority level due to differences in values; in addition, the diffusion of individualistic ideas is mostly internalized by younger birth cohorts.

Regarding the mediating effects of social structure and networks on the relationship between birth cohort and omnivority, the findings confirm that birth cohort differences in omnivority significantly decrease with rising cognitive abilities (i.e., years of schooling) and expanding heterogeneous networks. Furthermore, the class-bounded relationship of omnivore pattern, where the omnivority level gradually decreases from the service class to non-skilled workers, might partly be explained by the significant proportional decrease of the lower classes, as young people join the ever-expanding service industry. Besides, having a mixed network of social contacts and higher cognitive ability mediates the class effect on omnivority. In sum, cultural omnivority may gradually lose its distinction among people in the upper strata as conventionally defined in the current literature, due to democratized public education, a mixed social context, and social and geographical mobility. Thus, my reflection on these findings is that society will eventually become culturally omnivorous.

5.3 Examining the formation of online and offline social capitals

Advances in technology, along with individualism and globalization, mark one of the major social changes the world has witnessed over the last several decades. An ever-increasing number of people are turning to their mobile devices to construct their online social connections and receive a wide spectrum of support.

Thus, this third chapter aims to complete a picture that explains how social change influences how we construct our cultural tastes, spend our leisure time, and develop our social relations. In this chapter, I particularly focused on how people benefit from their social connections, examining the ways in which properties of the digital divide affect the relationship between online and offline ties. I specifically focused on social capital to broaden our understanding

of culture, explaining how social change relates to cultural change. To do so, I first created a composite social capital score to capture the way people construct and benefit from their offline and online social networks. Using Lin's (2005) conceptualization of social networks, I measured online and offline social capitals by taking the diverse associations of the social connections into account. Then, I crafted a research design to answer how the respondents' online social capital relates to the offline one, and whether any distinct social group possesses different levels of social capital in their respective online and offline connections.

There are two strands of literature addressing these issues. The first deals with the composition of social capital, viewing online social capital as either a reflection or a replacement of the online one. The second strand, on the other hand, focuses on the differences in composition of social capital across social groups. There are three arguments in this second body of literature. The first sees the shift towards online forms of communication as having been democratic in the sense of giving access to the disadvantaged to forms of social capital reserved for the advantaged (the *levelling argument*). The second argument sees the shift has having benefitted the advantaged by multiplying the weak ties of the advantage and limiting the use that the disadvantaged make of online networks to strong ties, reinforcing their segregation (the *deepening inequalities argument*). The third argument sees the composition of social capital as having affected all socio-economic groups, as having affected all socio-economic groups (the *continuity argument*).

To conduct a test of comparability of social capitals (online and offline), I utilized communication intensity, network multiplexity, weak-ties, and instrumental actions as the confirmed constructs. I then tested the link between these properties by employing a multi-level analytic technique, as social capital properties are nested within individual interviewees. Empirically, this chapter tested if and how the usage pattern of social connections relates to social structures and other demographic factors. I first found that the composition of social capital differs across the online and offline constructs. The findings also point towards increased online social capital among younger,

highly educated, and upper-class people, widening the social capital gap between generations and socio-economic structures. Thus, the most compelling empirical finding is associated with the digital divide, more specifically, how social capital is associated with social inequality.

5.4 Limitations of the dissertation and directions for future research

This dissertation contributes to the literature and to the pertinent scholarly debate by answering the research questions presented. However, as with all empirical research, it presents some limitations.

The first limitation concerns data availability. Finding a database that provides cross-sectional and longitudinal information on cultural preferences and social relations proved extremely difficult. Therefore, I cannot fully contend that temporal change is exclusively a matter of generational renewal. It is something highly possible, especially in cultural matters, but not strictly demonstrable with cross-sectional data. In Chapters 2 and 3, I was restricted by the lack of richness of the data for exploring cultural preferences. Fortunately, Chapter 4 relies on a rich dataset, which allows for using social relations to analyze community formations in the online and offline worlds.

Another limitation of this research is that the results are based on the observation of just one society, Spain, wherein the distinctive role of culture in creating the borders between different socioeconomic groups might be less prominent than in other developed countries, such as France or the United States (Lamont, 1992). Even though I tried to justify this focus based on the compressed nature of cultural changes experienced by this society after the traditional, conservative, and rural characteristics of the Franco Regime, it fails to account for the effects of different social contexts, meaning that it is not entirely certain how country-level factors shape cultural preferences and social relations. It remains open to interpretation whether the factors that I identified as explaining these changes can be generalized to other western societies. As the study did not include an analysis of the variation of cultural tastes over time using a

longitudinal approach and any cross-national comparison with a broader concept of cultural taste, it renders an overall conclusion on the changes in cultural preferences difficult. That said, establishing a comprehensive theory to explain the differences over time and among various countries is beyond the scope of this work.

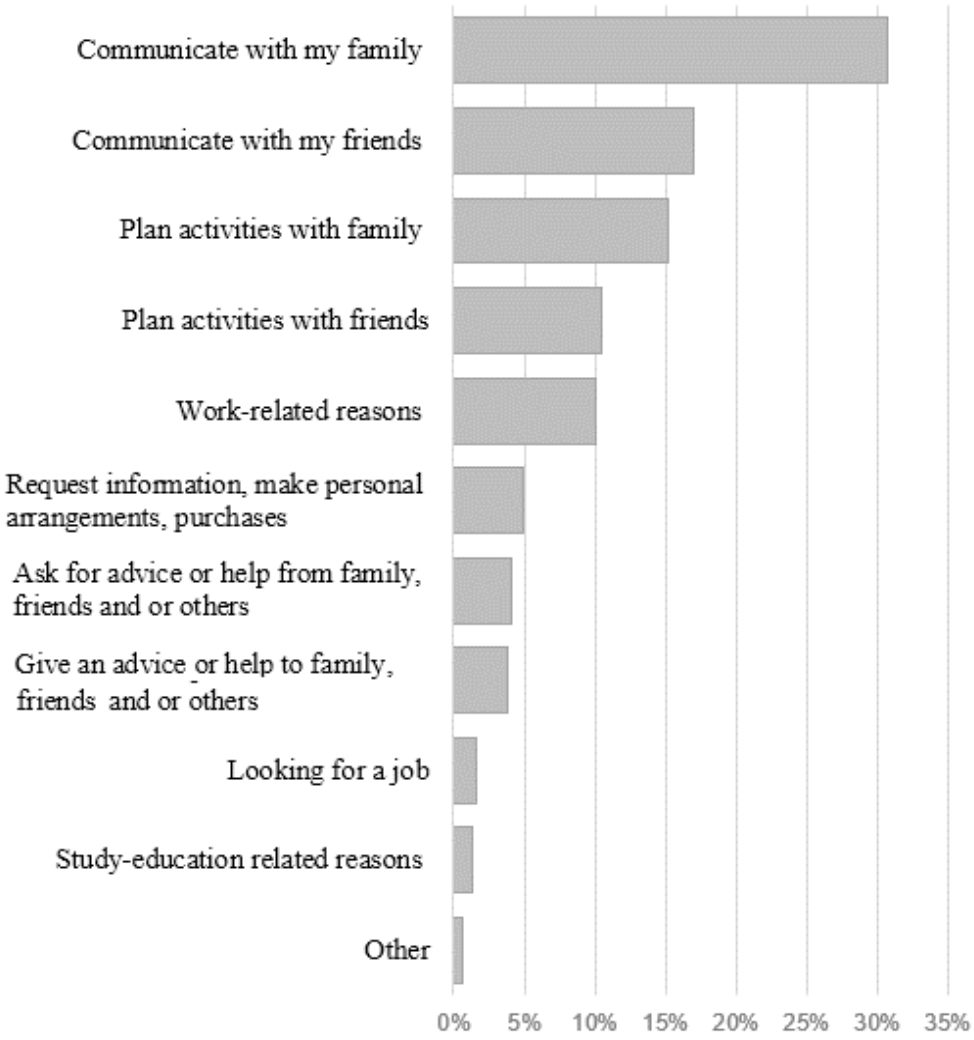
Previous work on cultural change (Inglehart, 1997; Inglehart & Baker, 2000) has shown that most western societies have experienced a general shift from material to post-material values, driven by increasing affluence. This dissertation demonstrates that Spain has experienced a similar pattern of cultural change in aesthetic preferences; furthermore, this pattern can partly be explained by the contraction of the segments of the society most affected by material constraints. Nevertheless, more cross-national and panel data studies should be carried out to obtain a more precise picture of the differences in cultural preferences and trends across countries, which are likely to be driven by differences in the patterns and evolution of countries' occupational and (to a lesser degree) educational structures.

As is clear from the abovementioned limitations, much research still needs to be conducted to further explore the formation of culture and social relations in today's world. There also exist several exciting avenues for future studies. For instance, global COVID-19 pandemic has already begun to profoundly impact how we spend our leisure time and connect with others around the world. Another interesting exercise would be to detail the construction of social capitals using more elaborate data mining and analysis techniques. While an in-depth analysis of social capital and cultural preferences is beyond the scope of this dissertation, further research, including more sophisticated data analysis methods, would be a step forward in further understanding our leisure time patterns.

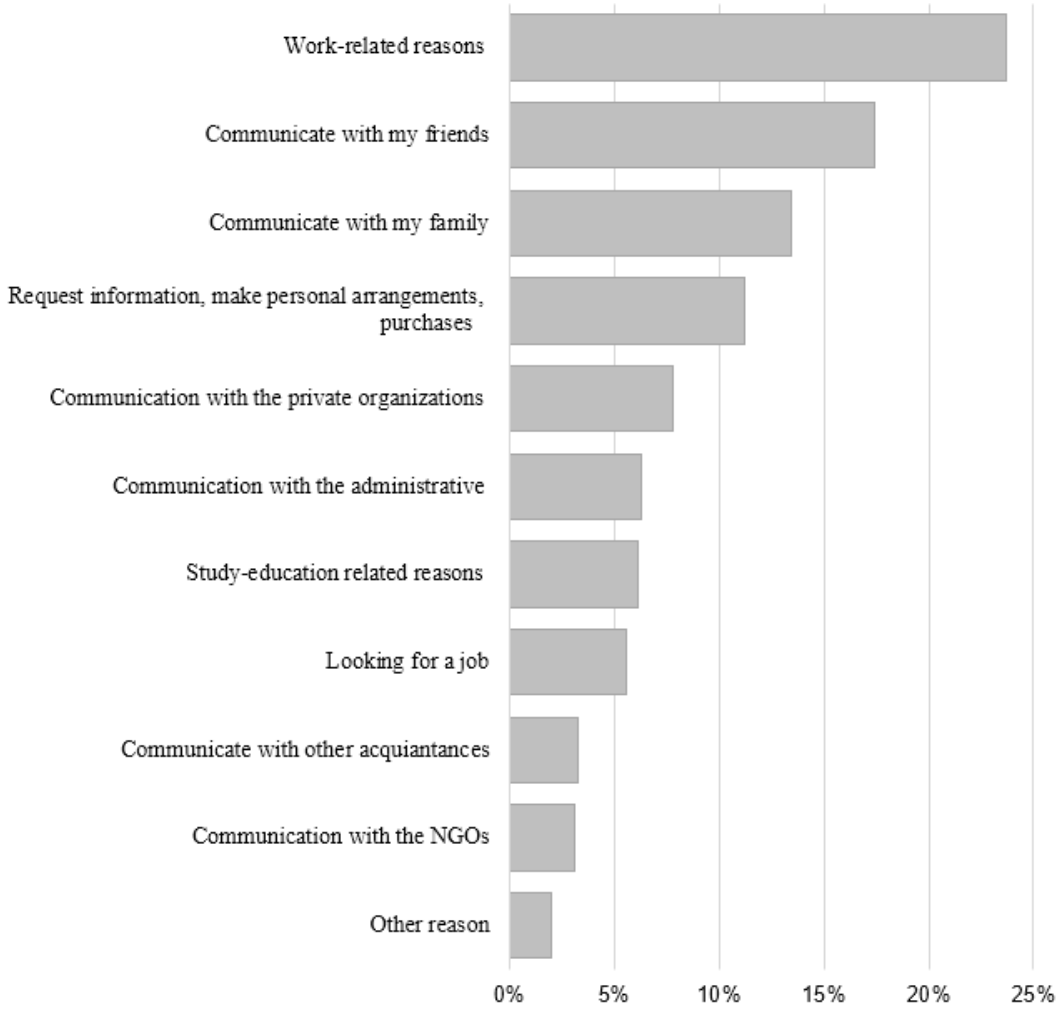
In conclusion, this study motivates us towards a newer, deeper understanding of this fruitful area. It finally suggests that further studies, taking cross-national and panel studies into account to capture time effects more precisely, are needed.

APPENDIX

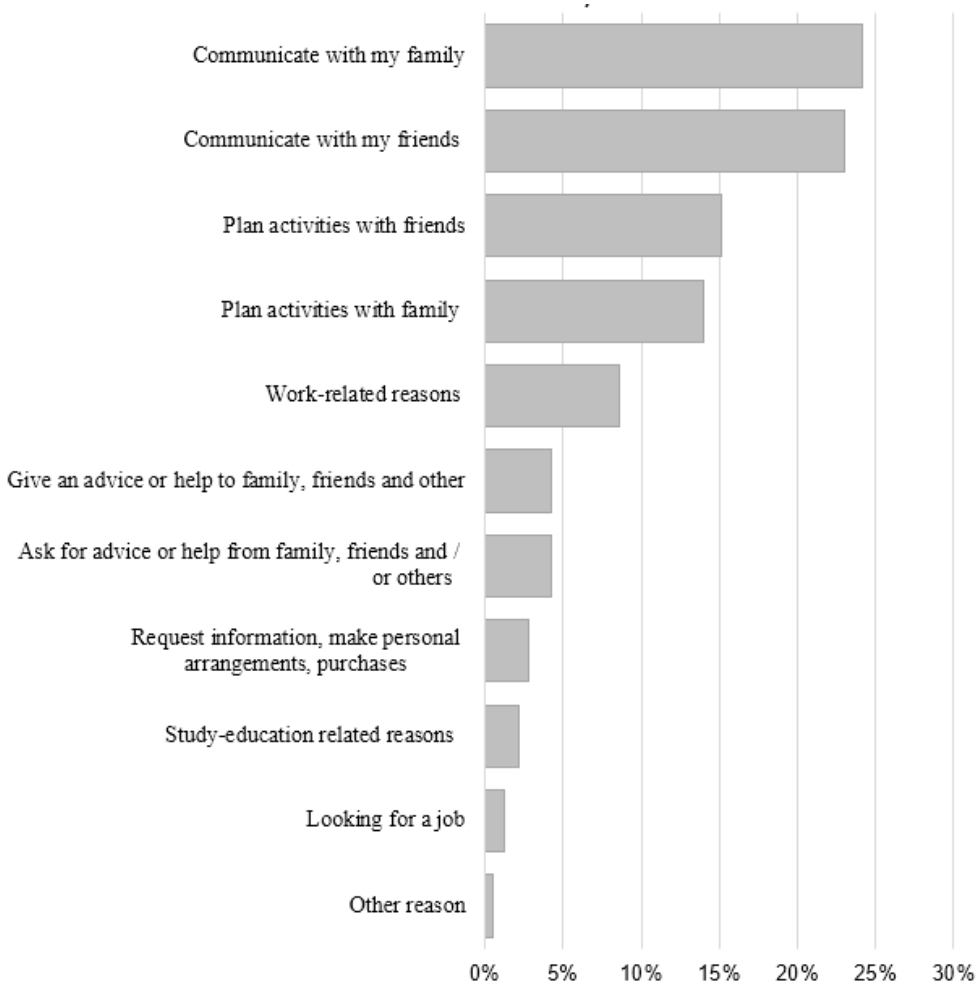
Graph A1. Main motivations to make phone call calls (preferences in %).



Graph A2. Main motivations to send e-mails (preferences in %).



Graph A3. Main motivations to use WhatsApp and other instant applications (preferences in %).



Graph A4. Main motivations to use social media (preferences in %).

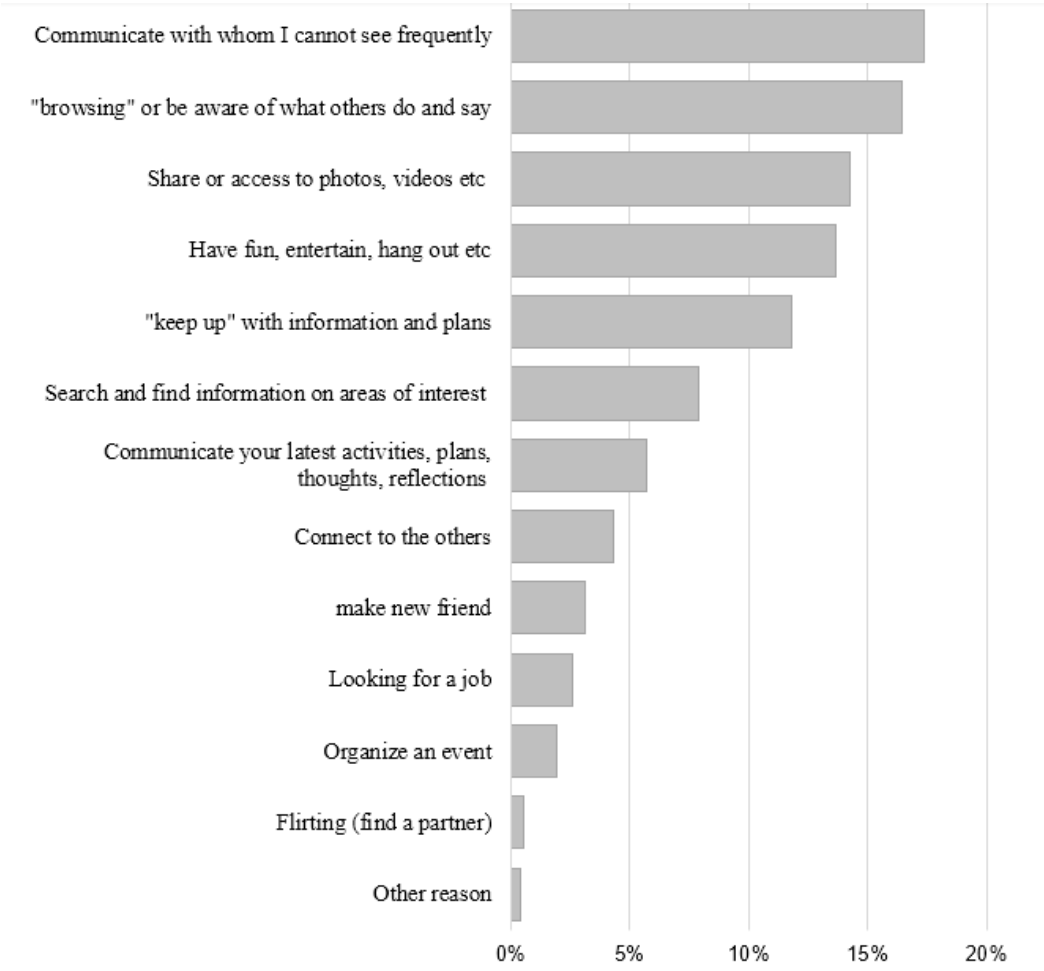


Table A1. Respondent's Uses of PDM and Factor Loadings for Social Media

		PDM Platforms				Factor Loadings for Social Media Uses		
Types	**Uses**	**Phone**	**Email**	**WhatsApp and other**	**Social Media**	**Dimension 1** (Assertive actions)	**Dimension 2** (Create new connections)	**Dimension 3** (Instrumental actions)
Assertive Actions	Communicate with my family (just chat with the family without a specific objective)	+	+	+				
	Plan activities with family (coordinate activities with the couple, children, parents, grandchildren)	+		+				
	Communicate with my friends (just chat with them without a specific objective)	+	+	+				
	Plan activities with friends	+		+				
	Give a piece of advice or help to family, friends, and others	+		+				
	Ask for advice or help from family, friends and others	+		+				
	Communicate with people who I cannot see frequently				+	0.30		
	Share or access to photos, videos, etc.				+	0.36		
	"browse," be aware of what others do, and of what those who use their social network say				+	0.31		
	"Keep up" with information and plans that are transmitted over the network ("hangouts," conversations, events…)				+	0.33		

(Continue on the next page)

	Be socially active (not to seem someone weird and isolated from a circle of relationships)				+	0.31		
Instrumental Actions	Work-related reasons (coordinate or organize a work activity, looking for information related to her profession)	+	+	+	+			0.46
	Study-education related reasons (appointments with teachers, consultations, etc.)	+	+	+				
	Looking for a job	+	+	+	+			0.42
	Request information, make personal arrangements, purchases	+	+	+				
	Other reason	+	+	+	+			0.33
	Communicate with administrative organizations (Immigratory authorities, Social Security, Tax Agencies, town halls)		+					
	Communication with private organizations (banks, commercial organizations)		+					
	Communication with the NGOs (cultural, social or local associations)		+					
	Communication with other acquaintances		+					
	Make a new friend				+		0.56	
	Flirting (find a partner)				+		0.40	
	Communicate your latest activities, plans, thoughts, reflections to others				+			0.42
	Search/receive information on areas of interest (politics, culture, environment, etc.)				+			0.33
	Have fun, get entertained, hang out, etc.				+			-0.35
	Organize an event				+		0.30	0.30

Table A2. Intra-class correlations between the variables.

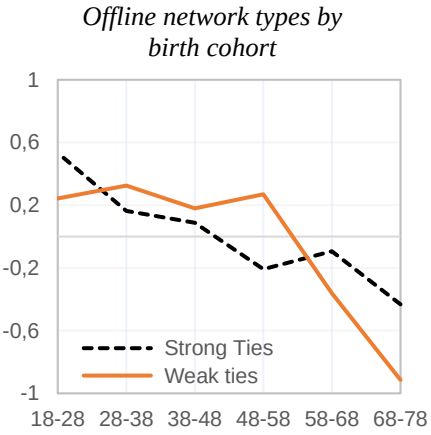
	Offline				Online			
	MULTIPLE	INTENSITY	INS	WEAK-TIES	MULTIPLE	INTENSITY	INS	WEAK-TIES
MULTIPLE	**1,00**	0,30	0,10	0,05	0,11	0,09	0,06	0,07
INTENSITY		**1,00**	0,09	0,19	0,16	0,20	0,05	0,08
INSTRUMENTALITY (INS)			**1,00**	0,09	0,18	0,20	0,19	0,09
WEAK-TIES				**1,00**	0,08	0,12	0,07	0,20
MULTIPLE					**1,00**	0,29	0,27	0,11
INTENSITY						**1,00**	0,26	0,65
INS							**1,00**	0,09
WEAK-TIES								**1,00**
ICC	**0,13**	**0,21**	**0,26**	**0,16**	**0,34**	**0,45**	**0,28**	**0,23**

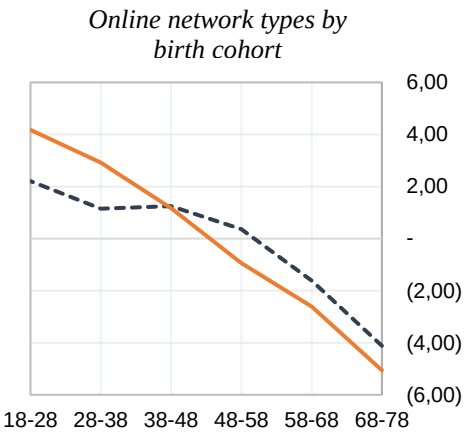
Appendix B.

The graphs below illustrate that younger people tend to use PDM more in connecting with new people and connect with their weak ties using WhatsApp and other instant applications and social media. The upper-class and better-educated people tend to use multiple platforms for instrumental actions. Here, I recoded age into five birth cohort (10-year cohort groups) to illustrate better the generational divide.

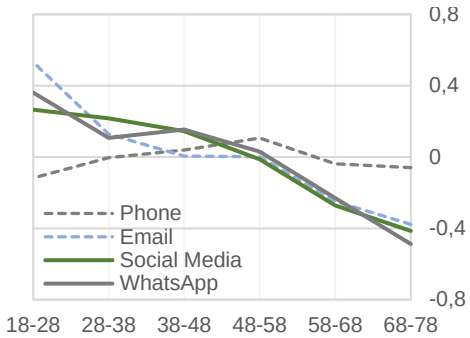
On the contrary, the phone (calling/sending SMS) is the primary platform of the lower educated and working-class people for that. It can be argued that people might use these platforms for various reasons (entertainment, social connection, information, etc.) to satisfy their needs due to the different characteristics of the platform (Steinfield et al., 2008) and the lower-educated people are more likely to use PDM for assertive actions and communicate with their strong ties, which leads them to have a lower level of (bridging) social capital (Papacharissi & Mendelson, 2011).

The primary platform for the upper-class and better-educated people in connecting with their online weak tie networks is email, and with their strong tie, one is WhatsApp and other instant applications. The working-class people, on the other hand, tend to use social media to contact their weak ties networks and making a phone call/sending SMS the most to communicate with their strong ties.

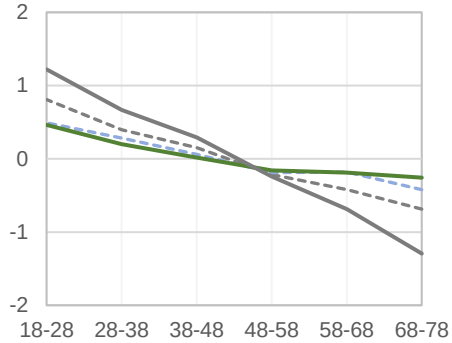




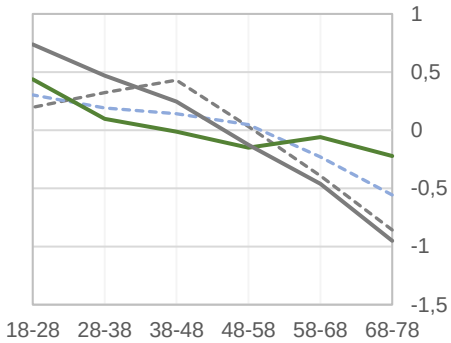
Instrumental actions on PDM by birth cohort



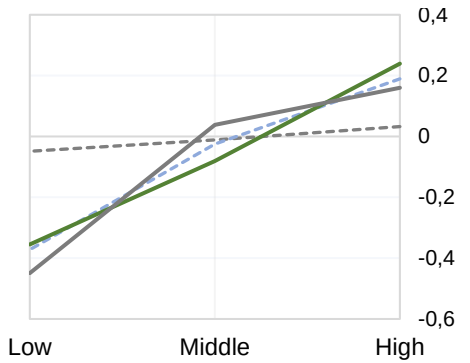
Strong ties online network on PDM by birth cohort



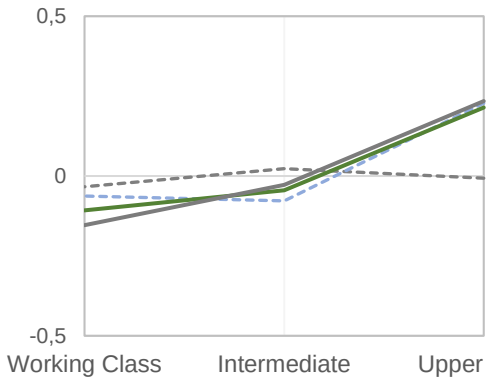
Weak ties online network on PDM by cohort



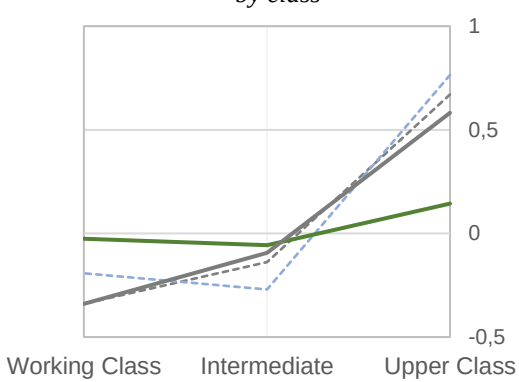
Instrumental actions on PDM by education



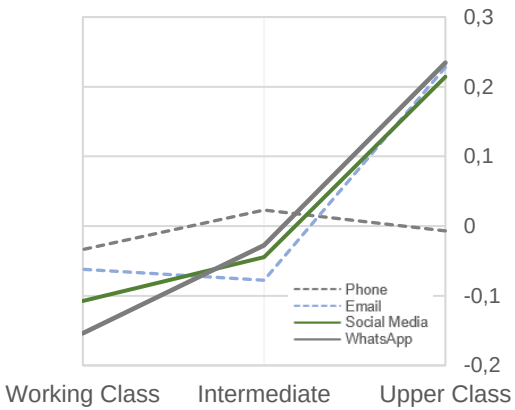
Strong ties network on PDM by class



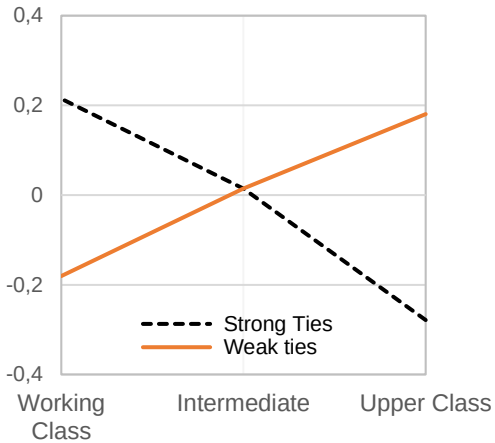
Weak ties network on PDM by class



Instrumental actions on PDM on class



Offline network types by class



Online network types by class