Cultural participation, cohort effects, and higher education (1981-2012)

Angèle Christin, Philippe Coulangeon, Olivier Donnat

▶ **To cite this version:**

Angèle Christin, Philippe Coulangeon, Olivier Donnat. Cultural participation, cohort effects, and higher education (1981-2012). 2016. hal-03459363

HAL Id: hal-03459363

https://sciencespo.hal.science/hal-03459363

Preprint submitted on 1 Dec 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

SciencesPo
OBSERVATOIRE SOCIOLOGIQUE
DU CHANGEMENT

Notes & Documents
de l'OSC

n° 2016-02 Mars 2016

Cultural participation, cohort effects, and higher education (1981-2012)

Angèle Christin
The New School for Social Research (New York)
Philippe Coulangeon
OSC-CNRS / Sciences Po (Paris)
Olivier Donnat
DEPS-Ministère de la Culture
et de la Communication (Paris)

Introduction

Cultural participation has evolved significantly over the past forty years. From the exponential growth and diversification of the cultural industries to the growing importance of eclecticism in cultural taste, patterns of cultural consumption are changing at a rapid pace. Sociological research has examined the transformations of cultural legitimacy, the rise of "omnivorousness" and the increasing complexity of cultural and media production in a more diverse world (Peterson, 1992; Peterson and Kern, 1996; DiMaggio and Mukhtar, 2004; Lena and Peterson, 2008). Yet relatively little effort has been devoted to examining the temporal structure of cultural change as it relates to the relative effects of age, period, and cohort on cultural participation.

In this paper, we argue that, from a sociological perspective, temporal change combines three elementary processes that need to be conceptually and empirically separated. "Age" effects encompass all the changes occurring across the life course of the individuals and refer to the biological and social process of aging. For instance, older people are less likely than younger people to go out to concerts with friends, as a result of declining mobility and shrinking networks, independently of when they were born. "Period" effects consist of all the variations reflecting exogenous change in people's environment at a given moment: such as historical events, political crises, or cultural transformations, which affect everyone at a given time, independently of one's age and birthdate. Thus, one might analyze the First World War as a "period" that had clear – although different – effects on the population of the countries engaged in the War effort during that period. "Cohort" effects relate to the enduring influence of events that affect individuals belonging to the same birth cohort. People who were born (or married, or graduated) the same year are expected to share in common some traits, due to the remaining influence of a set of founding events. In this view, the "baby boomers" or the "May 68" cohorts are said to share a set of characteristics that differentiate them from other cohorts.

This enduring character of historical events over time makes cohort effects fundamentally different from age and period effects. Cohort effects lie at the crossroads of individual lives and macro historical events; they also occur at the intersection of age and period effects. In Karl Mannheim's view, cohorts can thus be considered as categorical divisions analogous to social classes, driven by collective identities and linked to one another by potentially diverging interests (Mannheim, 1928). From a socio-historical point of view, the succession of cohorts can also be viewed as the essence of social change (Ryder, 1965).

What can be gained from examining cultural change in terms of cohort effects? This paper draws on a recent innovation in the statistical modeling of age-period-cohort effects (Yang and Land, 2013) in order to examine the structure of temporal change in cultural participation in the United States and France over past forty years, drawing on a comparison of four waves of cross-sectional datasets on cultural participation in each country ("Survey of Public Participation in the Arts," 1982-2012, in the United States; Enquête sur les Pratiques Culturelles des Français, 1981-2008, in France).

This paper draws on two broad hypotheses about cultural change. First, we argue that the content of cultural participation and the stratifying power of cultural participation have changed over time and across generations. The twentieth century was a period of key innovations in the cultural domain. Cinema, radio or television in the past or more recently digital technology brought new trends in the field of cultural practices that durably affect the cultural habits and attitudes of those who were born and grew up with them, as can be seen nowadays with the so-called 'digital natives.' Thus, cohorts born in the 1930s and cohorts

born in the 1970s will engage in different cultural activities that will correlate in different ways with their socio-economic status. Interestingly enough, it can be noted that when looking for founding events and experiences, cohorts are often describes in cultural terms in the age/period/cohort-related literature. Hughes and O'Rand, for example, labeled the 1916-1925 cohort as the "Jazz Age Babies" (Hughes and O'Rand, 2004).

Second, we expect important differences to emerge between the American and the French context. The two countries are often pictured as antithetical not only in their relation to high culture but also with respect to the stratifying function of culture, that is, in the respective role of "distinction" in creating symbolic boundaries between social groups (Bourdieu, 1984 [1979]; Lamont, 1992). France is often pictured as the country of highbrow culture, characterized by a population of distinguished connoisseurs and elitist cultural institutions backed up by the French State through a centralized "politique culturelle," whereas the United States appears as the land of mass culture, a large cultural market driven by popular culture, where boundaries between highbrow and popular culture no longer exist for an eclectic and tolerant audience.

Yet there are also reasons to believe that the French and the Americans have much more in common in this respect than what is generally assumed (Christin and Donnat, 2014). Faced with an increasingly globalized cultural offer, French and American respondents probably differ less in their deep attitudinal stances and cultural dispositions than in their social and economic structures or their political history.

Hence, instead of debating about whether the French are more "distinguished" than their American counterparts, the analytical strategy adopted in this paper is to compare and contrast the temporality of macro structural transformations over the past fifty years and examine how it shapes cultural participation in the two countries. Specifically, we are interested in structural phenomena that took place at different points in time in the two countries: the increase in birth rate associated with the "baby boom" cohort and the exponential growth of higher education. As the paper will argue, these structural transformations took place later in France compared to the United States. This different chronology resulted in important cohort differences in the two countries (Chauvel, 2000), which in turn had comparable but delayed effects on cultural participation. Consequently, we document much stronger cohort effects on cultural participation in France than in the United States during the period under consideration (1981-2012).

This paper is organized as follows. First, the literature review delineates the differences between the United States and France with respect to the role of culture in social stratification and the distinct temporality of the development of higher education in the two countries. We propose several hypotheses in order to make sense of these different cohort effects. Second, we turn to the presentation of the data sets and models used in the analysis. Last, we present our findings and discuss their relevance for the literature on cultural participation, comparative cultural sociology, as well as social and cultural change.

I. Literature review

This literature review proceeds in two steps. First, we examine why the two countries are often presented as polar opposites with respect to the stratifying role of culture, before emphasizing the limitations associated with this view. Second, we examine the similar transformations that the two countries underwent over the past fifty years, specifically the development of the cultural industries and the development of higher education, though at different points in time. We conclude by delineating several hypotheses about changing patterns of cultural participation in the United States and France.

Culture and stratification in the Old and the New World

The idea that culture plays a major role in the process of social stratification has long been highly popular in France, most probably due to the dissemination of Bourdieu's insights on that topic (Bourdieu, 1979 [1984]). In the American context, however, Bourdieu's theory encountered a mix of enthusiasm (DiMaggio and Useem, 1978; DiMaggio and Mohr, 1985) and skepticism (Holt, 1997).

Whereas scholars have drawn on Bourdieu's theory to make sense of cultural stratification in the American context (DiMaggio, 1982a; DiMaggio and Useem, 1978; Bryson, 1996), several critiques arguments also emerged. Overall, American readers of Bourdieu developed the idea that highbrow cultural practices are less "distinctive" in the American context than in the French.

Three intertwined ideas emerge along those lines in the literature. First, American elites would be less familiar with highbrow arts than their French counterparts (Halle, 1993). In this view, the overall prevalence of highbrow culture among the elite and the upper-middle-class would be much weaker in the United States than in France. Second, the American middle class would be more likely to rely on other criteria than cultural knowledge (for example economic success or moral standards) when drawing boundaries between social groups (Lamont, 1992). Third, Americans are supposed to be more "omnivorous" than their French counterparts, which is frequently explained by emphasizing the more important role of the cultural industries and mass culture in the United States (Adorno and Horkeimer, 2002 [1944]), as well as the blurring of cultural boundaries between social classes in the American context.

The causes for these differences are diverse. First, the importation of the European high-culture model to the United States is relatively recent: it is only at the end of the nineteenth century that highbrow cultural items such as classical music, opera, theatre or ballet were institutionalized and presented by nonprofit organizations financed by a small fraction of the East Coast elite (DiMaggio 1982b, 1992; Levine 1988). Thus, high culture would not have the same resonance in the United States and in France because of its more recent institutionalization as an elite activity.

A second line of analysis contrasts the educational systems of the two countries: the French educational system, being extremely centralized, would promote a clearly defined classical canon, whereas the American educational system would be heterogeneous and would feature a more diverse set of cultural references (Brint, 2006). In other words, this comparison between French and American schools still illustrates the traditional contrast between 'sponsored' and 'contest' mobility (Turner, 1960). More generally, the French and American educational systems are said to differ with respect to the cultural function assigned to school, that is, the kind of cultural content transmitted at school and the role of inherited culture in educational achievement. As shown by Steven Brint, education in the United States has been early and constantly considered as an instrument for the integration of immigrants (Brint, 2006). In contrast, the French school system remains emblematic of the "status-confirming" function traditionally devoted to education in the European context: secondary education is predominantly aimed at the symbolic unification and social reproduction of elites and the selective function of school prevails on its integrative role (Collins, 1977). For that reason, people with differing school grades are expected to be more closely related to specific sets of cultural attitudes and practices.

Last, a third approach focuses not so much on the cultural and educational system but on the structural features of the social body itself: in this view, because of immigration and geographic mobility, scholars argue that American society is more diverse than French society (Lamont, 1992; Lamont, 2000; Alba, 2005). Others also highlight the greater plurality of taste cultures that coexist in the US and the weaker hierarchy between them (Gans, 2008).

According to these arguments, the structuring power of high culture would be weaker in the United States than it is in France. While interesting in their own right, it is important to note here that these findings about the "weaker" role of high culture in the United States do not necessarily cast a doubt on the applicability of Bourdieu's framework to the United States. According to Bourdieu, the stratifying power of culture is *not* attached forever to specific kinds of cultural goods (e.g., classical music, impressionism, etc.). Over time, the embodied form of cultural capital, which is part of the *habitus*, progressively supersedes its objectified form (Bourdieu, 1986). In other words, culture should not be understood as being primarily a matter of specific taste and practices but rather a matter of attitudes that can be applied to a high variety of cultural goods ranging from "hip" to "lowbrow." Dispositions, rather than the specific cultural artifacts to which they are applied, are socially distinctive. Distinction and the stratifying power of culture might therefore apply to other fields of practices than just highbrow arts (Holt, 1997).

One should not overestimate the differences between the United States and France with respect to cultural participation, especially in recent years. The two countries indeed underwent similar evolutions over the past fifty years, as the next section delineates.

Trends in cultural participation in France and in the US

Trends in cultural participation have been extensively explored separately in the past, in France (Donnat, 1994, 1999, 2011) and in the US (Peterson and Sherkat, 1996; Peterson and Kern, 1996; DiMaggio and Mukhtar, 2004), but only scarce attempts have been made to compare French and American trends.

A recent study, based on the comparison between the surveys on cultural participation of the French Ministry of Culture and Communication and the US National Endowment of the Arts, makes a step in that direction (Christin and Donnat, 2014). Christin and Donnat start by emphasizing the differences between France and the US in the early 1980s, at a time when the American, whilst being much more avid consumers of television, had a higher overall level of cultural participation, except in the area of book reading. It then shows that the changes observed in each country over the following decades have often been similar, although they occur later in France (e.g. increasing consumption of television, decreasing book readership).

The only disparity concerns certain types of cultural outings (e.g. cinema, theatre and dance performances), for which attendance figures rose in France during the 2000s, at a time when they were showing a marked decline in the USA. It also emphasizes the similarities between the two countries in the changes that occurred in the profile of cultural consumers, in terms of age, gender, level of education and income. In both countries, cultural consumers are increasingly older and increasingly feminized. On each side of the Atlantic, a reduction in the cultural participation of the highest-educated people has also been observed (*Ibid.*).

Yet this study does not identify the underlying temporal structure of the cultural and social transformations under consideration. This is the main concern of our analysis.

II. Mass culture and mass education: similar processes, different chronology in the United States and France

In most Western countries, changes in cultural participation arise from the combination of a variety of factors. Commodification, urbanization, the accelerating pace of technological innovation, women's entry on the paid labor market, globalization, among many other changes, play an important role in shaping and changing lifestyles and cultural taste.

For the purpose of the paper, a couple of striking similarities between the Americans and the French should be emphasized: the growing importance of mass culture and the development of mass education[1]. The two countries underwent highly similar changes in these two areas, though with a delayed chronology in France.

French and American roads toward cultural massification

The "cultural industries" flourished both in the United States and France over the past half century, though in a relatively delayed manner in France. In both countries, considerations on mass culture have long been dominated by the controversial views on its evils. Criticism of mass culture brings together the mostly traditional defenders of humanities (Duhamel, 1930), the detractors of the media and entertainment-based manipulation of the crowds (Le Bon, 1900; Riesman *et al*., 1950) and the more radical Marxists critics from the Frankfurt school, according to whom cultural industries convey fake cultural repertoires that alienate people from their class identities (Adorno and Horkheimer, 2002 [1944]). However, in the American context, some authors elaborated on the positive virtues of mass culture as a cement of social cohesion (see for example Horace Newcomb and Paul Hirsch (1983) or James Carey (1988) on television; see also Levine on radio (Levine, 1992)).

The advent of mass-culture is historically anchored in a dual process that successively occurred in Europe and in the US. The birth of mass culture has been primarily rooted in the development of printings, and the story of this first age of mass culture is basically a European story (Sirinelli, 2002a; Mollier, 2002). In France, it is the advent of wide-circulation newspapers and cheap books collections in the late 1830s that marks the first step into the age of mass-culture (Khalifa, 2001; Mollier, 2002). But a second age of mass culture, which occurred about one hundred years later, follows the birth of radio and cinema. At the turn of the twentieth century, cinema has been the general matrix of modern cultural industries (Bowser, 1994) which development peaks between the 1930s and the 1950s, during the golden age of Hollywood (Scott, 2005). In France, the mass-culture had its heyday a few years later in the sixties (Sirinelli, 2002b). By contrast with France in particular and with European countries in general, the US benefited from an advantageous environment for the further development of mass-culture economy: a broad market, linguistically unified, etc.

In the fifties, the deployment of television marked a further step in the development of mass culture. Again, this deployment occurred more precociously in the US than in France. At the beginning of the sixties, nearly 90% of the American households had a television set. In France, no more than 35% percent of their French counterparts hold a television set at this time (Waterman, 2009: 184). Still in 1970, the ratio between the overall number of televisions in the country and the size of the population is two times higher in the United States than in France[2]. It was not before the early 2000s that the gap between the two countries

[1] A more thorough comparison would include the differing rates of entry of women's in the labor force, the evolution of the birth and immigration rates, and the evolution of socio-economic inequalities in the two countries.
[2] Source : World data bank, World Development Indicators:http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2

disappeared. At this time, between 95 and 97% of the population has access to television in France, whereas in the United States, this number was 98-99% (INSEE[3], Nielsen[4]).

Finally, the emergence of the internet and related technologies over the last 15 years provided another illustration of the time lag in cultural massification between France and the US. In 2000, about 12 percent of French households had an access to the internet, at a time when the corresponding rate was 41.5 percent in the US. One year later, 18 percent of the French households had an internet access, compared to 50.5 percent of their American counterparts. Still in 2004, only one third of the French households had an access to the internet, and it was not before 2007 than this proportion reached the level observed in the US in 2001 (OECD, 2008: 232).

On the production side, a notable concentration process took place in the US in the entertainment and media sector starting in the 1980s: as of 2014, a handful of companies dominate the musical industry (the « Big Four » : Sony-BMG, Vivendi Universal, EMI and Time Warner), the radio industry (with Clear Channel Communication) (Klinenberg, 2007), and the media sector: Disney, AOL-Time Warner, Viacom, General Electric, News Corporation, Yahoo !, Microsoft, and Google) (Bagdikian, 1997 Martel 2010). In France, a more modest concentration process also took place, starting in the late 1990s : for example, the book industry revolves around Editis et Hachette Livre, whereas the media sector features nine prominent companies (Hachette Filipacchi Médias (Lagardère), Socpresse (Dassault), Amaury, Prisma Presse, La Vie-Le Monde, Emap Media, Bayard Presse, Ouest-France). The public support provided to independent companies through the « politique culturelle » might have played a limiting role.

The cultural consequences of school expansion

The United States and France also witnessed a transformation of their respective higher education systems. In the two countries, the number of people with post-secondary diploma increased exponentially. Yet, as in the case of mass culture, such changes occurred much later in France than in the United States.

In the US, secondary school expansion began in the 1920s and was nearly achieved at the end of the 1940s, when the rate of high school graduation was nearly 70 percent (Brint, 2006:163; Brint and Karabel, 1989). It would be another sixty years before this rate reached the same level in France. The differences between the two countries are striking when one looks at the people born in 1940: 22% had attended a university in the United States against only 7% in France.[5] It was only at the beginning of the 1990s that the percentage of *baccalauréat* holders, including non-vocational, technical and professional tracks, reached 70 percent (Depp, Insee, 2014: 248).

In both countries, a longer training and attendance to a university has become a precondition in order to enter many emerging occupations. As a result, a stronger emphasis is placed on the functional utility of technical and commercial knowledge, rather than the symbolic prestige of the humanities.

This section delineated the similar evolutions affecting the United States and France with respect to the cultural industries and higher education. Yet these two phenomena are not of the same nature: changes that occurred in the field of education may have longer-lasting effects on people's behaviors than changes that occurred in the field of cultural production. People are indeed durably affected by the schooling conditions they experienced

[3] http://www.insee.fr/fr/themes/tableau.asp?reg_id=0&ref_id=NATnon05140
[4] http://www.tvb.org/media/file/TV_Basics.pdf
[5] Source : http://louis.chauvel.free.fr/AVZLCINSEE.pdf, Enquêtes Emploi 1982-1998 – INSEE (origine : LASMAS IDL – CNRS) et Current Population Surveys 1983-1999.

in their childhood, during their primary socialization, which shapes social dispositions in an essential way. In contrast, the impact of the cultural environment broadly defined may be more temporary. In addition, educational training and cultural conditioning do not follow the same temporal pattern. At any given time, people from different birth cohorts may have experienced distinct educational situations, whereas the impact of a given cultural environment may affect people of different generations more uniformly. In other words, changing schooling conditions may have a stronger generational component than the changes taking place in the field of cultural production, which are more closely entwined with the characteristics of the period in which they occur.

III. Data and Hypotheses

In the empirical part of the paper, we try to ascertain some of the assumptions drawn from previous research on culture and cultural participation in France and in the US. In light of the foregoing, we first expect that the differences between the United States and France with respect to the cultural participation's stratifying power are not as strong as often alleged (H1). We also presume that in the two national contexts cultural change is located at the crossroad of cultural supply dynamics, which we assume to be predominantly period-related, and educational shift, which we assume to be primarily cohort-related. We nonetheless assume that people's cultural habits are more durably affected by the schooling conditions they experienced than by many of the salient although often ephemeral characteristics of the cultural context in which they live. We then expect the transformation of cultural practices across time, to be prevailingly a matter of generational change, in France as well as in the US (H2).

We also anticipate from previous research that the shape of generational change is by and large similar in the two countries (H3a), with a particular strong commitment of the so-called "baby boomers" in cultural life (H3b).

Finally, we believe that France and the US experienced a weakening of the tie between education and culture over generations. This weakening, which we consider as a side-effect of school expansion, is expected to be stronger in France, where the diffusion of mass education occurred later than in the US (H4).

The data comes from the American Survey of Public Participation in the Arts (SPPA) and from the Surveys on French Cultural Practices (FCP). The Survey of Public Participation in the Arts collects data on Americans' participation in the arts. It includes data on practices related to the performing arts, the visual arts, and the literary arts. The survey is conducted on a periodic basis by the Research Division of the National Endowment for the Arts (NEA) since 1982[6].

The Survey on French Cultural Practices includes data on French's' participation in the Arts as well, conducted almost each seven years by the Department of Studies and Prospective of the French Ministry of Culture[7]. It covers the same field of practices than its American counterpart.

For the purpose of the analysis that follows, we restrict the scope of the comparison to the 1982, 1992, 2002 and 2008 editions of the SPPA survey and on the 1981, 1988, 1997 and 2008 editions of the FCP one. Although the reference years are not strictly identical on both sides, they are sufficiently close in time to consider the first, second, third and fourth edition of the French and American survey as equivalents.

[6] For more detailed information, see http://www.cpanda.org/cpanda/studies/c00016?view=summary
[7] For more detailed information, see http://www.pratiquesculturelles.culture.gouv.fr/

We also deliberately restrict the scope of the analysis to a very small number of indicators that unambiguously measure the same practices. As the surveys come from two different sources, most of the variables they contain do not strictly relate to the same practices, even when apparently very close. Our concern was also to include indicators that to some extent cover both highbrow and lowbrow culture, given that the aim of our research was not only focused on the temporal and generational changes in the diffusion of highbrow culture. Finally, we have retained the three following indicators, all coded as dummy variables:

- The first one relates to the attendance at cultural facilities that essentially belong to the field of highbrow culture, including theaters, ballet performances, classical concert halls, museums and historical monuments. Referred to as CULTAC, it takes the value 1 when the respondents attended at least at one of the aforementioned facilities during the year preceding the survey, and 0 otherwise[8];
- The second indicator refers to reading habits. Termed as READ, it takes the value 1 for people who read at least one book during the year preceding the survey, and 0 otherwise;
- Finally, the last one (TV) refers to the compulsive TV watchers, taking the value 1 for the respondents who watch TV at least 20 hours a week and 0 otherwise.

All of these indicators are derived from rather simply worded and unambiguous questions in the two series of surveys. The first two give a suitable approximation for people involvement in highbrow culture, or at least in the most legitimate cultural practices. Obviously, all theater play or museum do not belong to the realm of highbrow culture, but, all in all, the contrast between participants and non-participants in the five underlying practices measured by the CULTAC variable tell us something about people's participation in elite culture. Likewise, all readings - bestselling novels, romances, crime novels - do not belong to the realm of high culture as such, but the contrast between readers and non-readers is highly correlated to the distance from high culture.

Conversely, the last indicator might be considered as a good proxy for people's degree of commitment to mass-culture at large. Again, there is an increasing diversity of TV programs (thematic channels) and a certain diversification of viewers habits (video on demand, pay per view, etc.). Modern forms of TV consumption are certainly more segmented than traditional forms. To some extent, TV consumption is probably becoming a field of cultural distinction. But compulsive TV watching is still highly emblematic of a quite exclusive access to the most common products of mass-culture and generally appears negatively correlated as such with participation in the most legitimate cultural activities (Bennett *et al*., 2009). In that respect, the current metaphor of the omnivore and the univore (Peterson, 1992) may hide a more trivial contrast between culturally active people, on the one hand, whatever the kind of cultural practice they get involved in, including a quite large range of varied activities, from reading, to museum, concert or cinema, and culturally rather inactive people, on the other, who have hardly any access to any cultural activity, except for TV watching.

[8] Preliminary analyses not reproduced her prove that, taken together, the basic five dummy variables related to theater, museum, ballet, classical concert and historical monument (1 if experienced during the year preceding the survey, 0 otherwise) can be added up in order to define a scale that corresponds to an underlying latent disposition towards these kind of activities as a whole. In each of the four American and French surveys, the reliability test conducted on the five elementary dummies gives Cronbach alphas from .69 to .75, which corresponds to conventionally acceptable values for this test. As the distribution of the resulting scale is not normally distributed, with a huge proportion of zero values, it is worthwhile considering the simple contrast between zero and non-zero value of the scale, i.e. between those who participated in one of the five cultural activities at least and those who did not participate in any of them.

IV. Method

The problems posed by the identification and estimation of age, period and cohort effects are widely acknowledged. Even when relying on longitudinal datasets, it is not possible by means of usual statistical regression models, to determine whether time-related changes are caused by age variations, periodic transformations or inter-cohorts disparities, because each of the three effects is a strict linear combination of the two others. This well-known identification problem has been the subject of abundant debates during the 1970's and 1980'S (see for example Mason *et al*., 1973; Glenn, 1976; Fienberg, 1979; Mason and Fienberg, 1985).

Various solutions have been proposed during the last fifteen years in order to enhance the handling of the misidentification of these three effects. Hereafter, we will rely on the Hierarchical Age Period Cohort (HAPC) class of models proposed by Yang and Land (Yang, 2008; Yang and Land, 2013). This class of models which specifically apply to repeated cross-sectional surveys appears conceptually and methodologically well-fitted to the structure of the data under consideration in this paper. It addresses the APC identification problem by means of multilevel modelling. It considers period and cohorts (level 2) as social and historical contexts within which individual respondents (level 1) are embedded. It treats age as fixed effects and period and cohort effects as random[9].

In what follows, we estimate a series of multilevel logistic regressions in which we regress the three previously defined dummy variables (CULTAC, READ, TV) on age, periods and cohorts. For each of the three variables, we first estimate a baseline model (***model 0***). that includes the age effect in its fixed part and the period and cohort effects in its random part.

Periods corresponds to 1982, 1992, 2002 and 2008 in the US and to 1981, 1988, 1997 and 2008 in the US. Birth cohorts are divided in five-year intervals, and restricted to the cohorts that are present at least two times in the series of surveys : [1920-1924], [1925-1929], [1920-1924], [1925-1929], [1920-1924], [1925-1929], [1920-1924], [1925-1929], [1920-1924], [1925-1929], [1920-1924], [1925-1929] (see tables 1 and 2).

[9] This technical solution has been subjected to serious criticisms during recent years. Bell and Jones identified substantial flaws in the initial formulation of the HAPC solution that, according to them, make the identification and disentanglement of age, period and cohort rather unrealistic (Bell and Jones, 2013 and 2014). In their response to these criticisms, Yang and Land and their co-authors admit that, under the very peculiar circumstances created by the simulated data used by Bell and Jones in support of their arguments, the identification problem can be intractable (Reither *et al*., 2015a). But they also contend that the situation generated by Bell and Jones's simulation hardly correspond to what is encountered in real data and should not prevent future research for making use of the HAPC model provided that the data on which it applies does not violate certain basic assumptions (absence of exacte algebraic effects - i.e. effects with no random components - and of highly collinear temporal dimensions). Bell and Jones reiterated their criticisms, though, producing new simulations that question the relevance of the HAPC solution as such (Bell & Jones, 2015). In a latest rejoinder, Yang and Lang, together with a long list of co-authors reemphasize that, subject to the aforementioned conditions, the HAPC model will correctly identify the three kinds of age cohort and period effects. Based on a previous graphical inspection of the age, period and cohort effect and on model selection statistics (comparison of the BIC statistics for embedded models that first introduce age, cohort and period effects separately, and then introduce them conjointly; see below table 3), as recommended by Yang and Land, we are confident in the truly three dimensional structure of our data. For each models, we also applied F Tests for the presence of random effects, as suggested by Yang and Land (Yang, 2008; Yang and Land, and 2013). Finally, we contend that in the US case as well as in the French case, the HAPC model with random period and cohort effect can be adequately applied for our three indicators. Other solutions, based on the intrinsic estimator (IE) methodology (Yang and Land, 2013) has been proposed some of them overcoming the limitations of both the IE and HAPC solutions, such as the de-trended intrinsic estimator put forward by Chauvel and Schroder (Chauvel and Schroder, 2014, 2015). These solutions do not fit to the structure of the data under consideration in this paper, though, due to the unequal time spans between the successive waves of the survey

Table 1: Cross-classification of the SPPA respondents by periods and cohorts

	1982	1992	2002	2008	Total
1920	881	882	1030	394	3187
1925	838	933	757	650	3178
1930	855	996	830	717	3398
1935	874	1082	966	875	3797
1940	970	1198	1054	1131	4353
1945	1250	1470	1407	1456	5583
1950	1250	1745	1632	1752	6379
1955	1495	1892	1784	1996	7167
1960	1409	1806	1908	1910	7033
1965		1495	1705	1683	4883
1970		1310	1597	1599	4506
1975			1247	1555	2802
Total	9822	14809	15917	15718	56266

Source : NEA, SPPA 1982 to 2008

Table 2: Cross-classification of the EPCF respondents by periods and cohorts

	1981	1988	1997	2008	Total
1920	270	393	160	103	926
1925	263	339	174	147	923
1930	245	280	196	260	981
1935	244	340	175	244	1003
1940	253	280	159	286	978
1945	372	456	218	396	1442
1950	440	520	232	364	1556
1955	526	504	270	389	1689
1960	394	580	304	374	1652
1965		503	305	447	1255
1970		89	300	496	885
1975			263	415	678
Total	3007	4284	2756	3921	13968

Source: MCC, EPCF 1981 to 2008

We then estimate a more complex model (model 1) that adds two covariates, gender and education, in the fixed part of the model Education is coded as a three-category variable: less than high-school degree, high-school-degree, college or University diploma.

We finally estimate a second model (model 2) which allows for random variations of education effect with cohort, in order to test for our fourth hypothesis.

V. Results

In a first step, we assess the quality of adjustment of a series of embedded models that includes age, cohort and period effects separately and conjointly for each of the three cultural indicators under consideration in the analysis. As displayed in table 3, in each country and for each indicator, the model that introduces age, cohort and period simultaneously display a better goodness of fit to the data that the models that only introduce age or age and period or age and cohort separately (table 3). We then test for the goodness of fit of the previously defined model 1, which adds a set of control variable to the previous models. In both countries and for all three indicators, this model displays a better goodness of fit than the baseline model.

Table 3: Statistics for model selection (BIC criteria)

			France	US
			BIC	BIC
CULTAC	Model 1	age+cohort+period+ control variables	17294,23	**53770,83**
	Model 2	age+cohort+period+ control variables+cohort/education interaction	**17282,68**	53790,77
READ	Model 1	age+cohort+period+ control variables	13739,55	**62117,60**
	Model 2	age+cohort+period+ control variables+cohort/education interaction	**13728,61**	62118,32
TV	Model 1	age+cohort+period+ control variables	**15448,86**	39477,43
	Model 2	age+cohort+period+ control variables+cohort/education interaction	15452,91	**39471,16**

Table 4 displays the detailed parameters estimates of model 1 for each of the three indicators in France and in the US. In both countries, the parameter estimates of the fix part of the model show a relatively similar negative effect of age as to cultural facilities attendance and a positive impact as to TV watching. The impact of age on reading appears more complex, though, and quite different in the two countries, with opposite signs in the quadratic expression of age. In France, the likelihood of reading books declines with age, with a slight inflexion at older age, as suggested by the quadratic effect, whereas in the US, if first increase and then slightly decrease at older age. In both countries, this impact of age is rather small when compared to its impact on TV, though.

Table 4 : Parameter estimates of model 1 (attendance to cultural amenities, books reading, compulsive TV watching) – France and the US

		France						US					
		CULTAC		READ		TV		CULTAC		READ		TV	
Fixed Effects		*β*	OR	*β*	OR	*β*	OR	*β*	OR	*β*	OR	*β*	OR
Intercept	γ0	-0,232 +		0,451 *		-0,573 +		-1,543 **		-1,264 ***		0,047	
Ag	β1	-0,007		-0,120 **		0,154 ***		0,013		0,018 *		0,149 ***	
Agsq	β2	-0,018 *		0,047 ***		0,039 ***		-0,057 ***		-0,014 ***		0,084 ***	
Female	β3	-0,037	1,0	0,361 ***	1,4	0,329 ***	1,4	0,155 ***	1,2	0,717 ***	2,0	0,073 **	1,1
educ_2	β4	1,159 ***	3,2	1,397 ***	4,0	-0,700 ***	0,5	0,896 ***	2,4	0,898 ***	2,5	-0,104 **	0,9
educ_3	β5	1,849 ***	6,4	2,080 ***	8,0	-1,412 ***	0,2	2,190 ***	8,9	2,043 ***	7,7	-0,716 ***	0,5
Random effects													
year 1981	u1	0,089		0,189 +		-0,603 **							
year 1988	u4	0,003		0,042		0,148							
year 1997	u2	0,048		0,030		0,243							
year 2008	u3	-0,141 +		-0,264 *		0,214							
year 1982								0,251 +		0,144 +		-0,057	
year 1992								0,256 +		0,182 *		0,078 +	
year 2002								-0,118		-0,115		-0,056	
year 2008								-0,390 **		-0,211 *		0,035	
cht 1920	v1	-0,123		-0,156		0,126		-0,016		-0,024		-0,334 ***	
cht 1925	v2	-0,072		-0,048		0,093		-0,012		-0,006		0,001	
cht 1930	v3	-0,084		-0,031		-0,120		0,016		0,016		0,111 +	
cht 1935	v4	0,049		0,002		-0,018		0,022		0,003		0,057	
cht 1940	v5	0,229 **		0,199 *		-0,012		0,001		0,009		0,105 +	
cht 1945	v6	0,260 ***		0,213 *		-0,114 +		0,009		0,020		0,083	
cht 1950	v7	0,021		0,179 *		-0,093		-0,013		0,002		0,040	
cht 1955	v8	0,133 +		0,168 +		-0,031		0,015		0,002		-0,008	
cht 1960	v9	0,067		0,143		-0,082		-0,016		0,019		-0,081	
cht 1965	v10	-0,093		-0,051		-0,004		-0,014		-0,016		-0,002	
cht 1970	v11	-0,143		-0,215 +		0,192 *		0,006		-0,009		0,027	
cht 1975	v12	-0,245 *		-0,408 **		0,064		0,002		-0,016		0,002	
Random Effects-Variance components													
Year	τu0	0,010		0,031		0,126 +		0,075 +		0,028 +		0,005	
Cht	τv0	0,026 *		0,041 *		0,013 *		0,001		0,001		0,015 *	

In both countries, gender has a significant impact on reading and TV watching, as well as on cultural facilities attendance in the US. In any case, women display a greater probability to read, watch TV and attend to theatres, museums, etc. than their male counterparts (table 4). But this impact of gender, as well as the impact of age, is considerably

weaker than the impact of education, which definitely appears as the best predictor for each of the three indicators, as displayed by the odds ratio reported in table 4. In France as well as in the US, the likelihood of the attendance to cultural facilities is more than twice higher for those with a high school graduate than for those with less than high school graduate (even more than three times higher in France). And the contrast is even sharper for those with at least some college, with a likelihood of reading a little more than six times higher in France, and nearly nine times higher in the US (table 4). Similar results are reported as to reading and as to TV watching, but the other way round in the latter case. Finally, it is also striking that for cultural facilities attendance as well as for book reading, the gap between the most educated and those with intermediate levels of qualifications appears even stronger in the US than it is in France, when comparing the values of the odds-ratio reported in table 4. It is only for television that the differences between the highest level and the intermediate level impacts appear rather similar in the two countries, and even a little smaller in the US. All in all, these results show a quite identical stratifying power of cultural participation – and especially participation in highbrow culture – in the two countries as regards to people's level of education at least and give some support to our first hypothesis. France and the US are very much more similar in that respect than often asserted. Differences between the two countries are much stronger when taking temporal dynamics into consideration, cohort and period effects

In France, period effects are generally non-significant for the attendance to cultural facilities and for reading, as shown by the period random effect coefficient τ_{u0} in the bottom part of table 4. In this respect, the significant random effects that appear for some years of the survey must be cautiously interpreted, although they can suggest a slight decline in cultural facilities attendance and reading over time. By contrast, a more significant and substantial period effect appears as to television, with a clear contrast between the first year of the survey (1981) and the following, that most probably corresponds to a pure supply effect. In 1981, the diffusion of television was far from the saturation level in French households. By the end of the eighties and during the two following decades, French broadcasting landscape experienced a major change, mainly due to the emergence of several commercial TV channels with extending programing hours, in sharp contrast with the prevailing state monopoly on TV broadcasting (Silj, 1992; Palmer & Sorbets, 1997). This resulted in a dramatic expansion of TV supply in a relatively short period of time that is likely to be reflected in the significant gap between the 1981 survey and the subsequent ones.

Period effects are much more significant in the US, with a clear-cut decline in cultural facilities attendance and reading over time, particularly pronounced in the last year of the survey, confirming previous research on cultural consumption in the US (DiMaggio and Mukhtar, 2004; Christin and Donnat, 2014).

The examination of the random effects-variance components in the bottom part of table 4 depicts a significant contribution of the cohort random effect coefficient τ_{v0} for the three indicators in France, but for the third one only the US. In France and for the attendance to cultural facilities as well as for reading, the detailed inspection of the random coefficients, shows a strong concentration of the effect on the 1940 and 1945 cohorts, with a positive deviation, and on the 1970 and 1975 cohorts, with a negative deviation. As to television, the cohort effect is much more concentrated on the 1970 cohort, with a positive deviation. All in all, French baby boomers seem to durably have a better access to cultural facilities and those born in the 1970's display a higher level of television consumption.

The cohort effect that appears for television in the US is quite exclusively concentrated on the 1930 and 1940 cohorts, with a positive deviation for each. This suggests a somehow different pattern than the one observed in France, where a slightly significant negative deviation appears for cohort 1945, and where the 1970 cohort displays a positive deviation. In other words, whereas compulsive TV watching appears intrinsically associated with some

of the oldest cohorts in the US, it is more closely related to some of the most recent ones in France. Overall, these results bring only limited support to our second hypothesis. Change in cultural participation appears to be prevailingly a matter of generation in France, but not in the US, except for TV watching. On the other side, change can be related to period effects in the US as to the attendance to cultural facilities and reading, and, to a lesser extent, as to TV watching in France. Changing cultural behaviors are thus not uniquely driven by generational dynamics. Finally, our third hypothesis is not supported as such. Although generational change observed in France seems indeed mainly concentrated on the baby-boomers, as expected, this baby-boomers effect is not exclusive of other significant deviations that affect other cohorts, specifically the youngest ones, as regards to attendance at cultural facilities as well as reading and TV watching. In addition, as significant cohorts effects only happen in the US as to TV watching, we cannot conclude that the shape of generational change is by and large similar in the two countries, as we anticipated it was.

Coming back to the goodness of fit statistics displayed in table 3, we can notice that the more elaborated model 2 that allows for a modulation impact of cohort on the education effect performs better than model 1 in France for cultural facilities attendance and reading and in the US for compulsive TV watching (table 3). Figure 1 displays the predicted probabilities of the attendance to cultural facilities in France, based on the estimates of model 2, and plotted by cohorts and level of education. This graphical display suggests that the modulation impact of cohort on education is concentrated on the youngest cohorts and on the highest level of education (college or university). This graphical impression is confirmed by the detailed inspection of the parameter estimates of the model reproduced in the appendix. On the whole, the distance between the highest and the lowest diplomas appears maximal among the French “baby boomers” (those born between 1940 and 1945) and minimal among the more recent cohort (those born between 1970 and 1975) as to the attendance to cultural facilities. In other words, this suggests that the kind of cultural practices measured by the CULTAC variable was more distinctive of the most educated people among the former than among the latter.

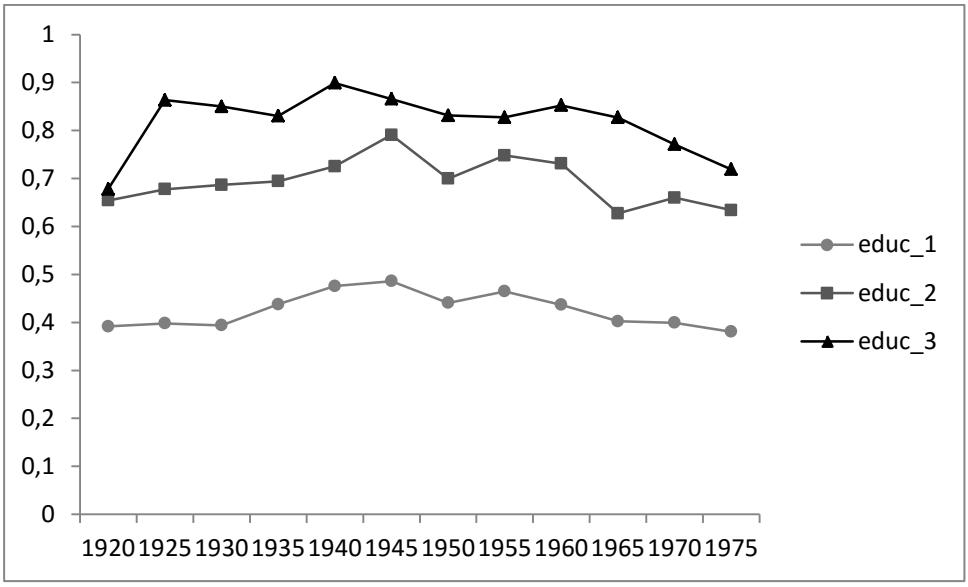

Figure 1: Estimated probabilities (Model 2) of the attendance at cultural facilities (CULTAC) by cohorts in France

As to books reading in France, the corresponding graph also suggests a concentration of this moderating impact on the youngest cohorts, but contrasting with the attendance to cultural facilities outcome, this modulation impact appears mainly concentrated on the lower and intermediate levels of education (figure 2). The detailed inspection of the parameter estimates of the model reproduced in the appendix indicates that this modulation impact is in fact more clearly concentrated on the intermediate level of education (high school degree). Whereas high-school graduates born before 1960 display a quite similar proportion of readers than the highest graduates, the proportion of readers among those born after 1960 gets closer to the proportion of readers observed among the least educated.

Figure 2: Estimated probabilities (Model 2) of books reading (READ) by cohorts in France

Finally, the moderating impact of cohort on the effect of education on compulsive TV watching in the US suggests a growing distance between the most educated (college or

university) and the rest of the population in terms of TV watching habits from the oldest generations to the youngest (Figure 3). Finally, the weakening impact of education on cultural participation that we expected to observe is only supported in France, at least for attendance at cultural facilities and reading, but not for TV watching. By contrast, it is only for TV watching that we observe such a moderating effect of cohort on the impact of education in the US. On the whole, our expectation of a stronger moderating effect of cohort in France is nonetheless supported.

Figure 3: Estimated probabilities (Model 2) of compulsive TV watching (TV) by cohorts in the US

VI. Discussion

Are France and the US so different in cultural participations matters? According to the results of the analysis displayed in this paper, people's engagement in cultural participation appears in both countries to be quite equally stratified by age and gender, at least with regard to the three indicators included in our comparison (attendance at cultural amenities, book reading and compulsive TV watching), with some minor differences as to book reading, though. Furthermore, in France as well as in the US, education remains a strong predictor of cultural participation, if not the strongest one. In that respect, the two countries are probably much more similar than sometimes stated. In both countries, participation in highbrow arts, such as attendance to museums, theatres, opera, as well as engagement in the most legitimate practices, such as reading, is highly stratified by education. In both countries, a huge gap exists between non-graduates and high school graduates in relation to these practices and an even sharper one between the former and those with at least some college. In both countries, access to higher education seems to go hand in hand with incommensurably highest levels of engagement in highbrow culture, and incommensurably lowest levels of commitment with the most trivial artefacts of mass-culture, such as TV. Accordingly, and all the more when keeping in mind the stronger gap between the very educational elite and the rest of the educated population in the US, we found little support in our data to the idea that cultural participation is a weaker status marker in the US.

The comparison between France and the US displays significant differences between the two countries with regard to the changes observed in the field of cultural participation since the early 1980s, though. First, period-related variations in cultural participation appear

quite stronger and significant in the US than they are in France, especially with regard to the attendance at cultural facilities. This might suggest in that matter a greater sensitivity of the Americans to the variations in their environment, especially to the economic fluctuations, possibly due to the differences between the two countries in social welfare in general and in public support to the arts and participation in the arts in particular. As such, this hypothesis remains highly speculative, though, and would need further investigation.

Finally, the two countries display even sharper contrast as to the disparities between generations, which seem globally more prominent in France than in the US, especially when it comes to participation in rather highbrow activities. In line with previous results on that topic (Donnat, 2011), these effects are mainly concentrated on the so-called French "baby-boomers", i.e. roughly speaking people born between 1940 and 1955, with no equivalent on the other side of the Atlantic. In France, it seems that the so-called baby boomers had in their youth a privileged access to a flourishing supply of cultural goods and amenities and played a pivotal role in the diffusion of cultural practices and some form of cultural democratization. In a lot of domain, they continue as adults to exert a leading role in the cultural field, though, with a stronger involvement in cultural practices than the youngest generations. It is then among these cohorts that the differences between French and Americans might be the highest, then decreasing in the following ones.

The generational component of cultural change in France is not limited to the baby-boomers, though. People born at the beginning of the 1970s, in particular, display a stronger commitment to television than both their elders and their followers. In addition, their American counterparts do not display the same pattern, which most probably reflect the time lag between the two countries as to the dissemination of television. Indeed, in France, these cohorts are those who grew up during the golden age of television. And this pattern is also coupled with the declining effect attached to these cohorts as regards to reading and, to a lesser extent, attendance at cultural amenities that mainly belong to the field of highbrow culture (theatre, museums, classical concerts, etc.).

Concerning reading as well as attendance at cultural amenities, a moderating effect of cohort on the impact of education also appears among the youngest French cohorts. But this moderating effect is concentrated on specific levels of qualifications which are not the same for the two indicators. This suggests that the underlying processes are probably not of the same nature in the two cases.

On the one hand, the relative decline of reading might be linked to the impact of school expansion, to the extent that it is mainly concentrated on the high school graduates born after 1965, namely the cohorts and the level of education that benefited the most from the sharp increase in the number of '*baccalauréat*' holders that occurred between 1985 and 1995 (Chauvel, 2000). In addition, it does not affect those with less than high-school degree and those with a college or university diploma. This decline most probably reflects a decreasing selectivity of this level of qualification. As the number of high school graduates increases, their average academic standards and skill level mechanically decreases and this is not surprisingly reflected in their reading habits, which are so intimately linked to cognitive abilities and school achievement.

Concerning the attendance at cultural amenities, on the other hand, the moderating effect of cohort on education impact cannot be so clearly considered as a consequence of the school expansion, as the generational decline observed among the youngest cohorts is primarily concentrated on the highest graduates (college or university), which does not correspond to the level where the effects of school expansion were maximal among the cohorts under consideration.

These results reflect the mix nature of the relation between education and cultural habits, i.e. the cognitive and social status components of the impact that education has on

them (Ganzeboom, 1982; Notten *et al*., 2014). The link between education and reading most probably illustrate the first one. Reading requires cognitive abilities that are positively correlated with education. The decline of reading among the high school graduates might thus be attributed to a decline of their average cognitive abilities in a context of school expansion and reduced selectivity attached to this level of education. By contrast, the link between education and attendance at cultural amenities may rather illustrate the status dimension of the impact of education on cultural practices. People manifest their belonging to the status group that corresponds to their level of education by adopting some emblematic practices of this group. In that sense, the relative decline observed amongst the most educated members of the youngest cohorts may simply demonstrate the declining distinctive power of this kind of practices in these cohorts.

Ironically, this declining involvement of the French graduates in cultural activities, which has no equivalent in the US in the cohorts under consideration, reflects a somehow paradoxical reduction of cultural inequalities in the French context. Decreasing inequalities are not due to a better access to cultural activities of the least educated, but to a declining involvement of the best endowed with cultural resources, which cannot be truly considered as a result of a cultural democratization process.

Finally, the moderating effect that cohort has on education in the US with regards to TV watching reflects an increasing distance between the educational elite of this country and the rest of the population as to the most emblematic device of mass-culture, that culminates among the 1960 cohorts. Again, this result is not very supportive of the idea that culture would have a weaker stratifying power among the American elites than it has among the French ones.

Conclusion

Concerning cultural participation and activities, France and the US differ probably most by their History than by the underlying social processes that link culture to education, and especially to higher education, in the two countries. Altogether,, there is no evidence of a weaker stratifying power of culture in that respect in the US, but a certain contrast between the changing cultural habits of French across generations, and the relative stability of the American ones. Ultimately, the contrast between France and the US most probably reflects the time lag between the two countries as to the chronology of school expansion and cultural massification. On the one hand, in France, the differences observed across generations in cultural practices illustrate and ongoing process in the field of education and in the field of culture. On the other hand, in the US, the relative absence of such differences across generations points to a story that seems already completed.

The main limitation of our analysis is undoubtedly due to the restrictive and exaggeratedly “substantialist” definition of culture and cultural participation we rely on in the two national contexts. Further investigation should be initiated that includes a wider range of indicators and that rely on a more inclusive and flexible definition of culture and cultural participation in the two countries.

REFERENCES

Alba, R. (2005), “Bright vs. blurred boundaries: Second-generation assimilation and exclusion in France, Germany, and the United States”, *Ethnic and racial s*tudies, 28(1), 20-49

Atkinson, W. (2011), “The context and genesis of musical tastes: Omnivorousness debunked, Bourdieu buttressed”, *Poetics*, 39(3), 169-186.

Bagdikian, B. (1997), *The Media Monopoly* (5th edition), New York: Beacon Press.

Bell, A & Jones, K. (2013), “The impossibility of separating age, period and cohort effects”, *Social science & Medicine*, 93, 163-5.

Bell, A and Jones, K. (2014), “Another 'futile quest'? A simulation study of Yang and Land's Hierarchical Age-Period-Cohort model”, *Demographic Research*, 30, 333-360

Bell, A and Jones, K. (2015), “Should age-period-cohort analysts accept innovation without scrutiny? A response to Reither, Masters, Yang, Powers, Zheng, and Land”, *Social Science & Medicine*, 128, 331-333

Bennett, T., Savage, M., Silva, E. B., Warde, A., Gayo-Cal, M., and Wright, D. (2009), *Culture, class, distinction*, Abingdon, UK: Routledge.

Bertin-Maghit, J. P. (2002), *Le cinéma sous l'Occupation: le monde*. Paris : Perrin.

Bogart, L. (1972), *The age of television: A study of viewing habits and the impact of television on American life*, New York: F. Ungar Publishing Company.

Bourdieu, P. (1979 [1984]), *Distinction: A social critique of the judgement of tante*, Cambridge MA: Harvard University Press.

Bourdieu, P. (1986), “The forms of capital”, *in* J. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education*, New York: Greenwood, 241-258.

Bowser, E. (1994), *The transformation of cinema, 1907-1915 (Vol. 2)*, Berkeley CA: University of California Press.

Brint, S. G. (2006), *Schools and societies*, Stanford CA: Stanford University Press.

Brint, S. and Karabel, J. (1989), *The Diverted Dream. Community Colleges and the Promise of Educational Opportunity in America, 1900-1985*, New York: Oxford University Press.

Brooks, Van Wyck (1915), "Highbrow and Lowbrow," *The Forum*, 53, 481-92.

Bryson, B. (1996), “Anything but Heavy Metal: Symbolic Exclusion and Musical Dislikes.” *American Sociological Review* 61(5), 884-899.

Carey, J. W. (1988), *Media, myths, and narratives: Television and the presse*, Newbury Park, CA: Sage Publications.

Chauvel, L. (2000), « Valorisation et dévalorisation des titres: une comparaison France –États-Unis », *in* A. van Zanten (ed.), *L'École, l'État des savoirs*, Paris : La Découverte, p. 341-352.

Chauvel, L., and Schröder, M. (2014), "Generational Inequalities and Welfare Regimes", *Social Forces*, 92(4), 1259-1283.

Chauvel, L., and Schröder, M. (2015), "The Impact of Cohort Membership on Disposable Incomes in West Germany, France, and the United States", *European Sociological Review*, 31(3), 298-311.

Christin, A. (2012), "Gender and highbrow cultural participation in the United States", *Poetics*, 40(5), 423-443.

Christin, A and, Donnat, O. (2014),« Pratiques culturelles en France et aux États-Unis », *Culture études* n° 1, p.1-16 (http://www.cairn.info/revue-culture-etudes-2014-1.htm)

Collins, R. (1977), "Some comparative principles of educational stratification", *Harvard Educational Review*, 47(1), 1-27.)

Coulangeon, P., and Lemel, Y. (2007), "Is 'distinction'really outdated? Questioning the meaning of the omnivorization of musical taste in contemporary France", *Poetics*, 35(2), 93-111.

DEPP. (2014), *Repères et références statistiques sur les enseignements, la formation et la recherche*, Paris, Ministère de l'Éducation Nationale et de la Recherche. (http://cache.media.education.gouv.fr/file/2014/04/7/DEPP_RERS_2014_344047.pdf)

DiMaggio, P., and Useem, M. (1978), "Social class and arts consomption", *Theory and society*, 5(2), 141-161.

DiMaggio, P. (1982a), "Cultural capital and school success: The impact of status culture participation on the grades of US high school students", *American sociological review*, 189-201.

DiMaggio, P. (1982b), "Cultural entrepreneurship in nineteenth-century Boston: the creation of an organizational base for high culture in America", *Media Culture Society*, 4 (1), 33-50.

DiMaggio, P., and Mohr, J. (1985), "Cultural capital, educational attainment, and marital sélection", *American journal of Sociology*, 1231-1261.

DiMaggio, P., and Ostrower, F. (1990), "Participation in the arts by black and white Americans", *Social Forces*, 68(3), 753-778.

DiMaggio, P., and Mukhtar, T. (2004), "Arts participation as cultural capital in the United States, 1982–2002: Signs of décline?", *Poetics*, 32(2), 169-194.

Donnat, O. (1994), *Les Français face à la culture: de l'exclusion à l'éclectisme*, Paris : La Découverte.

Donnat, O. (1999), «La stratification sociale des pratiques culturelles et son évolution 1973-1997», *Revue française de sociologie*, vol. 40, n°1, p.111-119.

Donnat, O (2011), « Pratiques culturelles, 1973-2008, Dynamiques générationnelles et pesanteurs sociales », *Culture études*, n°7, p.1-36. (http://www.cairn.info/revue-culture-etudes-2011-7.htm)

Duhamel, G. (1930), *Scènes de la vie future*, Paris : Mercure de France.

Fienberg, S. E. (1979), "Identification and estimation of age-period-cohort models in the analysis of discrete archival data", Sociological methodology, 1-67.

Fienberg, S. E., and Mason, W. M. (1985), "Specification and implementation of age, period and cohort models" *in* S. E. Fienberg and W. M. Mason, *Cohort analysis in social research*. New York: Springer, 45-88

Gans, H. (2008), *Popular Culture and High Culture: An Analysis and Evaluation Of Taste* (Ed. revised and updated), New York: Basic Books.

Ganzeboom, H. (1982), "Explaining differential participation in high-cultural activities: a confrontation of information-processing and status-seeking theories", *in* R. Werner (Ed.), *Theoretical models and empirical analyses*, Utrecht: E.S. Publications, 186-205.

Glenn, N. D. (1976), "Cohort analysts' futile quest: Statistical attempts to separate age, period and cohort effects", *American sociological review*, 900-904.

Grignon, C., and Passeron, J. C. (1989), *Le savant et le populaire: misérabilisme et populisme en sociologie et en littérature*, Paris : Le Seuil.

Hall, J. R. (1992), "The capital(s) of cultures: A nonholistic approach to status situations, class, gender, and ethnicity", *in* Lamont M. and Fournier M. (eds.), *Cultivating differences: Symbolic boundaries and the making of inequality*, Chicago: University of Chicago Press, 257-285.

Halle, D., (1993), *Inside culture: Art and class in the American home*, Chicago: University of Chicago Press.

Holt, D. B. (1997), "Distinction in America? Recovering Bourdieu's theory of tastes from its critics", *Poetics*, 25(2), 93-120.

Horkheimer, M., Adorno, T. W., and Noerr, G. S. (1944 [2002]), *Dialectic of enlightenment: Philosophical fragments,* Stanford CA.: Stanford University Press.

Hughes, M. E., and O'Rand, A.M. (2004), *The lives and times of the baby boomers*, New York: Russell Sage Foundation.

Kalifa, D. (2001), *La Culture de masse en France, T. 1*, *1860-1930*. Paris : La Découverte.

Kammen, M. G. (1999), *American culture, American tastes: Social change and the 20th century*, Basic Books.

Klinenberg, E. (2007), *Fighting for Air: The Battle to Control America's Media*, New York: Metropolitan Books.

Lamont, M. (1992), *Money, morals, and manners: The culture of the French and the American upper-middle class*, Chicago: University of Chicago Press.

Lamont, M. (2000), *The dignity of working men. Morality and the Boundaries of Race, Class, and Immigration*, Cambridge MA : Harvard University Press.

Lamont, M., and Lareau, A. (1988), "Cultural capital: Allusions, gaps and glissandos in recent theoretical developments", *Sociological theory*, 6(2), 153-168.

Le Bon, G. (1900), *Psychologie des foules*, Paris, F. Alcan.

Lena, Jennifer C., and Richard A. Peterson (2008), "Classification as Culture: Types and Trajectories of Music Genres", *American Sociological Review*, 73 (5): 697-718.

Levine, L. (1988), *Highbrow/lowbrow: The emergence of cultural hierarchy in America*, Cambridge, MA: Harvard University Press.

Levine, L. W. (1992), "The folklore of industrial society: Popular culture and its audiences", *The American Historical Review*, 1369-1399.

Mannheim, K. (1928), "Das Problem der Generationen", *Kölner Vierteljahreshefte für Soziologie*, 7(2):157–85, 309–30.

Martel, F. (2010), *Mainstream. Enquête sur la guerre globale de la culture et des medias*, Paris : Flammarion.

Mason, K. O., Mason, W. M., Winsborough, H. H., and Poole, W. K. (1973), "Some methodological issues in cohort analysis of archival data", *American sociological review*, 242-258.

Mason, W. M., and Fienberg, S. (Eds.). (2012), *Cohort analysis in social research: Beyond the identification problem*, New York: Springer.

May, L. (1980), *Screening out the past: The birth of mass culture and the motion picture industry*, Chicago: University of Chicago Press.

May, L. (2000), *The big tomorrow: Hollywood and the politics of the American way*, Chicago: University of Chicago Press.

Mollier, J. Y. (2002), «Le parfum de la Belle Epoque», *in* Rioux J.P., Sirinelli J.F., *La Culture de masse en France de la Belle Époque à aujourd'hui*, Paris : Fayard, p. 75-115.

Newcomb, H. M., and Hirsch, P. M. (1983), "Television as a cultural forum: Implications for research", *Quarterly Review of Film & Video*, 8(3), 45-55.

Notten, N., Lancee, B., van de Werfhorst, H. G., and Ganzeboom, H. B. (2014), "Educational stratification in cultural participation: cognitive competence or status motivation?", *Journal of Cultural Economics*, 39(2), 177-203.

OECD (2008), *OECD Information Technology Outlook 2008*, Paris: OECD Publishing.

Ortega y Gasset, J. (1930), *The revolt of the masses*.

Palmer, M. and Sorbets, C. (1997), "France", *in* Stubbe Østergard B. (ed.), *The media in Western Europe. The Euromedia Handbook*. London: Sage, 56-74.

Peterson, R. A. (1992), "Understanding audience segmentation: From elite and mass to omnivore and univore", *Poetics*, 21(4), 243-258.

Peterson, R. A. and Simkus, A. (1992),"How Musical Tastes Mark Occupational Status Groups", *in* Lamont, M. and Fournier, M. (eds.), *Cultivating differences: Symbolic boundaries and the making of inequality*, Chicago: The University of Chicago Press, 152-168.

Peterson, R. A., and Kern, R. M. (1996), "Changing highbrow taste: from snob to omnivore", *American sociological review*, 900-907.

Peterson, R. A., and Sherkat, D. E. (1996), *Age Factors in Arts Participation: 1982–1992*, Washington D.C.: National Endowment for the Arts. (Research Division Report #34, part 1.)

Reither, E. N., Masters, R. K., Yang, Y. C., Powers, D. A., Zheng, H., and Land, K. C. (2015a), "Should age-period-cohort studies return to the methodologies of the 1970s?", *Social Science & Medicine*, 128, 356-365.

Reither, E. N., Land, K. C., Jeon, S. Y., Powers, D. A., Masters, R. K., Zheng, H., ... and Yang, Y. C. (2015b), "Clarifying hierarchical age–period–cohort models: A rejoinder to Bell and Jones", *Social Science & Medicine*, 145, 125-128.

Riesman, D., Glazer, N., and Denney, R. (1950), *The lonely crowd: A Study of the Changing American Character*, New Haven, CT: Yale University Press.

Ryder, N. B. (1965), "The cohort as a concept in the study of social change", *American sociological review*, 843-861.

Scott, A. J. (2005), *On Hollywood: The place, the industry*, Princeton University Press.

Silj, A. (1992), *The New Television in Europe*, London, England: Libbey

Sirinelli, J. F. (2002a), «L'avènement de la culture-monde», *in* Rioux J.P. et Sirinelli J.F. (dir.), *La Culture de masse en France de la Belle Époque à aujourd'hui*, Paris : Fayard, p. 7-21.

Sirinelli, J. F. (2002b), «Le coup de jeune des sixties», *in* Rioux J.P. et Sirinelli, J.F. (dir.), *La Culture de masse en France de la Belle Époque à aujourd'hui*, Paris : Fayard, p.116-154.

Turner, R. H. (1960), "Sponsored and contest mobility and the school system", *American sociological review*, 855-867.

Warde, A. and Gayo-Cal, M. (2009), "The anatomy of cultural omnivorousness: The case of the United Kingdom", *Poetics* 37(2), 119-145.

Warde, A., Wright, D., and Gayo-Cal, M. (2007), "Understanding cultural omnivorousness: Or, the myth of the cultural omnivore", *Cultural Sociology* 1(2): 143-164.

Waterman, D. (2009), *Hollywood's road to riches*, Cambridge MA: Harvard University Press.

Yang, Y. (2008), "Social inequalities in happiness in the United States, 1972 to 2004: An age-period-cohort analysis", *American Sociological Review*, 73(2), 204-226.

Yang, Y., and Land, K. C. (2013), *Age-period-cohort analysis: new models, methods, and empirical applications*, Boca Raton, London, New York: CRC Press.

Appendix 1: Formalization of the HAPC models

The baseline model (Model 0). that includes the age effect in its fixed part and the period and cohort effects in its random part, is written as follows:

$Y_{ijk} = \beta_{0jk} + \beta_1 AGE_{ijk} + \beta_2 AGE^2{}_{ijk} + e_{ijk}$ (Level 1)

Where Y_{ijk} stands for the dependent variable (CULTAC, READ or TV),

The subscript *i* stands for the individuals, *j* for the period and *k* for the cohort.

β_{0jk} is the intercept of the model,

e_{ijk}, the error term,

β_1 and β_2, the age and age squared coefficients (fixed effects),

Given the mixt structure of the model, β_{0jk} can be expressed as follows:

$\beta_{0jk} = \gamma_0 + u_{0j} + v_{0k}, u_{0j} \sim N(O, \tau_u), v_{0k} \sim N(O, \tau_v)$ (Level 2)

where γ_0 stands for the intercept,

u_{0j} stands for the random period effect,

and v_{0k} for the random cohort effect.

The initial model can then be rewritten as follows:

$$Y_{ijk} = \gamma_0 + \beta_1 AGE_{ijk} + \beta_2 AGE^2{}_{ijk} + u_{0j} + v_{0k} + e_{ijk}$$

Model 1, that adds two covariates, gender and education, in the fixed part of the model, is written as follows:

$$Y_{ijk} = \gamma_0 + \beta_1 AGE_{ijk} + \beta_2 AGE^2{}_{ijk} + \beta_3 SEXE_{ijk} + \beta_4 EDUC_{ijk} + u_{0j} + v_{0k} + e_{ijk}$$

Where

β_3 and β_4 correspond to the coefficients of the gender and education covariates.

Finally, Model 2, which allows for random variations of education effect with cohort, is written as follows:

$$Y_{ijk} = \beta_{0jk} + \beta_1 AGE_{ijk} + \beta_2 AGE^2{}_{ijk} + \beta_3 SEXE_{ijk} + \beta_{4k} EDUC_{ij} + e_{ijk}$$

where $\beta_{4k} = \gamma_4 + v_{4k}$.

that is to say the combination of a fix effect (γ_4) with a random and cohort-related effect (v_{4k}) of education. The complete expression of the model is thus:

$$Y_{ijk} = \gamma_0 + \beta_1 AGE_{ijk} + \beta_2 AGE^2{}_{ijk} + \beta_3 SEXE_{ijk} + \beta_4 EDUC_{ijk} + u_{0j} + v_{0k} + v_{4k} + e_{ijk}$$

Appendix 2: Parameter estimates of model 2 (attendance to cultural facilities, books reading, compulsive TV watching) – France and the US

	France						US		
	CULTAC			READ			TV		
Fixed Effects	*β*		OR	*β*		OR	*β*		OR
Intercept	-0.219	*		0.467	*		0.074		
ag	-0.017			-0.133	***		0.152	***	
agsq	-0.020	**		0.045	***		0.070	***	
female	-0.033		1.0	0.366	***	1.4	0.069	**	1.1
educ_2	1.148	***	3.2	1.480	***	4.4	-0.097	+	0.9
educ_3	1.884	***	6.6	2.103	***	8.2	-0.710	***	0.5
Random effects									
cht 1920	-0.069			-0.132			-0.129		
educ_2	-0.035			0.204			-0.092		
educ_3	-0.643	*		0.011			0.009		
cht 1925	-0.075			-0.042			-0.007		
educ_2	0.068			0.237			-0.009		
educ_3	0.433			0.166			0.170	+	
cht 1930	-0.090			-0.035			0.026		
educ_2	0.101			0.272			0.013		
educ_3	0.317			0.119			0.208	*	
cht 1935	0.050			-0.011			0.015		
educ_2	-0.050			0.257			-0.037		
educ_3	-0.026			0.072			0.106		
cht 1940	0.185	*		0.169	+		0.031		
educ_2	-0.053			0.128			0.019		
educ_3	0.432	+		-0.003			0.073		
cht 1945	0.208	**		0.171	*		0.038		
educ_2	0.255			0.195			0.033		
educ_3	0.052			0.078			-0.017		
cht 1950	0.017			0.151	+		0.029		
educ_2	-0.059			0.041			0.033		
educ_3	-0.051			-0.103			-0.076		
cht 1955	0.117	+		0.131			-0.014		
educ_2	0.081			-0.024			-0.008		
educ_3	-0.169			0.043			-0.027		
cht 1960	0.015			0.100			-0.016		
educ_2	0.104			0.111			-0.033		
educ_3	0.138			-0.060			-0.136	+	
cht 1965	-0.098			-0.040			0.014		
educ_2	-0.222			-0.584	*		0.017		
educ_3	0.078			0.004			-0.071		
cht 1970	-0.100			-0.171			0.015		
educ_2	-0.088			-0.372			0.030		
educ_3	-0.239			-0.220			0.009		
cht 1975	-0.161			-0.297	*		0.026		
educ_2	-0.120			-0.605	*		-0.033		
educ_3	-0.417	+		-0.146			-0.028		
year 1981	0.078			0.172	+				
year 1988	0.000			0.035					
year 1997	0.042			0.032					
year 2008	-0.120	+		-0.245	*				
year 1982							-0.041		
year 1992							0.078	+	
year 2002							-0.046		

year 2008				0.044
Variance components				
cht		0.018 *	0.027 *	0.002
cht	educ_2	0.032	0.152 +	0.005
cht	educ_3	0.138 +	0.042	0.009 *
year		0.007	0.026	0.003 +

Pour citer ce document : / Readers wishing to cite this document:

Christin Angèle, Coulangeon Philippe, Donnat Olivier (2016), « Cultural Participation, Cohort Effects, and Higher Education in the United States and France (1981-2012) », *Notes et Documents*, 2016-02, Paris, OSC, Sciences Po / CNRS.

Résumé
Ce document propose une analyse comparée de l'évolution des facteurs sociaux de la participation culturelle en France et aux États-Unis depuis le début des années 1980. Elle s'appuie sur les Enquêtes sur les pratiques culturelles des français (1981,1988, 1997 et 2008) et des enquêtes issues du Survey of Public Participation in the Arts (1982, 1992, 2002 et 2008). La période est marquée dans les deux pays par un recul de la lecture et des pratiques les plus légitimes et par une progression des pratiques issues de la culture de masse, en particulier le temps consacré à la télévision. On montre au moyen de modèles hiérarchiques Age-Période-Cohortes destinés (HAPC) une assez grande proximité des pays quant à l'impact des facteurs sociaux de la participation culturelle mais une plus grande prévalence des effets de cohortes en France et des effets de période aux États-Unis. La France se distingue aussi des États-Unis par l'effet atténué de l'éducation sur les pratiques culturelles observé au sein des cohortes les plus récentes, qui sont aussi celles de la massification scolaire, intervenue en France beaucoup plus tardivement qu'aux États-Unis. Au total, rien n'indique que la culture soit moins « classante » aux États-Unis qu'elle ne l'est en France. Les deux pays se différencient en revanche par l'ampleur des transformations générationnelles observées en France depuis le début des années 80 qui contraste avec la relative stabilité des comportements des américains au cours de la même période.

Mots clés
Culture, Stratification sociale, Massification scolaire, Bourdieu (1930-2002), Lamont (1957-), Modèles Age-Période-Cohortes

Abstract
The French and the Americans are often presented as having radically different relations to popular and high culture. Yet no analysis has systematically compared the evolutions of cultural participation in the two countries over time. In this paper, we propose a statistical exploration of two nationally representative cross-sectional data sets: the four waves of the Survey of Public Participation in the Arts in the United States (1982-2008) and the Enquêtes sur les Pratiques Culturelles des Français (1981-2008). We argue that in both countries the relationship between cultural practices and social stratification has changed over time and across generations. In the United States and in France, highbrow cultural activities and reading practices have declined over time, whereas television viewing has increased. We then focus on the impact of period change and cohort renewal on these evolutions. We show a fairly close proximity of the two countries as to the impact of the social factors of cultural participation but a greater prevalence of cohort effects in France and of period effects in the US. France also differs from the US by the mitigated effect of education on cultural practices observed in the more recent cohorts. These cohorts experienced a massive school expansion, which occurred in France much later than in the US. Finally, there is no indication of a weaker stratifying power of culture in the US than in France. The two countries differ by the extent of generational changes observed in French cultural habits since the early 80s, which contrasts with the relative stability of the American ones during the same period.

Keywords
Culture; Social stratification, School expansion, Bourdieu (1930-2002), Lamont (1957-), Hierarchical Age-Cohort-Period models

Version électronique, en ligne / On-line version
http://www.sciencespo.fr/osc/fr/content/notes-documents-de-l-osc
Également disponible sur SPIRE, l'archive ouverte de Sciences Po. https://spire.sciencespo.fr/web/

A participé à l'édition de ce numéro / Editorial board
Bénédicte Héraud (ingénieure OSC-CNRS).

Observatoire Sociologique du Changement

27 rue Saint-Guillaume
75337 Paris cedex 07
01 45 49 54 50

http://www.sciencespo.fr/osc/fr/

Responsable de la publication :
Mirna Safi

CC BY
OSC 2016