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EXTERNAL DIFFERENCES AND INTERNAL SIMILARITIES

COMPLEX CHANGE IN CULTURAL CONSUMPTION PROFILES IN DENMARK 1975-2004

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Complex Change in Cultural Consumption Profiles in Denmark 1975-2004

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Abstract:

This paper analyzes change in cultural consumption profiles in Denmark over the period 1975-2004 along three dimensions: number of profiles; between-profile socioeconomic heterogeneity; and within-profile socioeconomic heterogeneity. Previous studies have considered the first and second aforementioned dimensions separately, but our analysis is the first to simultaneously consider all three together. We draw on ten cultural activities to capture qualitative and quantitative differences between cultural consumption profiles. We find four qualitatively different consumption profiles, among them an omnivore group which has increased in size from 7% in 1975 to 18% in 2004. We document considerable time-persistent socioeconomic differences between the consumption profiles with respect to individuals' social class, income, and education. Finally, we find an increase in within-profile total cultural participation level over time but few within-profile socioeconomic differences in overall participation level. Our results suggest that individual socioeconomic characteristics principally explain between-profile and not within-profile differences in cultural consumption.

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1. Introduction

A significant part of research on cultural stratification has focused on identifying different prototypical cultural consumption profiles in the population. In recent years, the main thrust of this research has been one particular type of cultural consumer: the cultural omnivore (e.g., Coulangeon and Lemel, 2007; Peterson, 2005; articles in volume 36, issues 2-3 of *Poetics* 2008). The cultural omnivore is typically conceptualized as a member of the elite or a high-status individual who experiences and appreciates a variety of cultural tastes, thus in addition to exhibiting a preference for highbrow culture she also engages in middlebrow and lowbrow culture. Competency in a variety of components of the cultural hierarchy is employed in processes of cultural stratification, cultural reproduction, and social selection (Peterson, 2005).

Most empirical research on cultural consumption profiles has used cross-sectional data collected at one point in time. Consequently, although originally the theory of the omnivorous cultural consumer emphasized a long-term transition from a snobbish to an omnivorous taste among high-status individuals (Peterson and Simkus, 1992), the vast majority of existing studies provide only a snapshot of the cultural omnivore's preferences and social makeup (e.g., Bryson, 1997; Chan and Goldthorpe, 2007a, 2007b; Emmison, 2003; Fisher and Preece, 2003; Holbrook et al., 2002; López-Sintas and García-Álvarez, 2002; Warde et al., 1999; Warde and Gayo-Cal, 2009). A few more recent studies have adopted a cross-time view of cultural consumption profiles in general (DiMaggio and Mukhtar, 2004), or of cultural omnivorousness in particular (García-Álvarez et al., 2007; identifying citation, 2008; López-Sintas and Katz-Gerro, 2005; Peterson et al., 2000; Sullivan and Katz-Gerro, 2007; Van Eijck and Van Rees, 2000). Most of these studies find that the distribution of different cultural consumption profiles has changed over time and, although the empirical evidence is limited, it seems that omnivorous cultural consumption has gradually become

more prevalent since the 1970s. There is also some evidence that omnivorous cultural consumption has decreased somewhat after a peak in the 1990s (identifying citation, 2008; Peterson, 2005).

This paper adds to the small body of empirical studies that analyze change in cultural consumption profiles over time with an interest in change over time in the contours of cultural stratification. Our contribution is in using data from Denmark to analyze the extent to which socioeconomic characteristics predict *which* cultural consumption profile people belong to, if the impact of these characteristics change over time, and how the different cultural consumption profiles differ *internally* with respect to their overall level of cultural participation. In doing so, we present a more analytically detailed picture of complex change in cultural consumption profiles than previous studies. Specifically, we address three interrelated questions: 1) which cultural consumption profiles exist in Denmark and has the distribution of the different profiles changed over the period 1975-2004; 2) How do individual socioeconomic characteristics (notably income, education, and social class) differentiate *between* the different cultural consumption profiles; 3) How do individual socioeconomic characteristics differentiate overall cultural consumption levels *within* each profile?

2. Cultural consumption profiles

This section reviews findings from previous studies that sought to identify qualitative differences in cultural consumption profiles by looking at tastes for genres that tend to go together or participation in activities that tend to be practiced in tandem. All of these studies report a group of individuals who fit the **omnivore** metaphor: inclusive elitist highbrows in arts participation (López-Sintas and Katz-Gerro, 2005) and in cultural participation (Alderson et al., 2007) in the USA and in Spain (López-Sintas and García-Álvarez, 2002); omnivores in musical tastes in the USA (García-Álvarez et al., 2007) in the UK (Chan and Goldthrorpe, 2007b) and in France

(Coulangeon and Lemel, 2007); omnivores in visual arts in the UK (Chan and Goldthorpe, 2007a), and omnivores in reading in Russia (Zavisca, 2005). The same studies also identify a type of consumers who are considered **passive** (López-Sintas and Katz-Gerro, 2005), and are also called limited (García-Álvarez et al., 2007), inactive (Alderson et al., 2007; Chan and Goldthrope, 2007a; López-Sintas and García-Álvarez, 2002), univores (Chan and Goldthorpe, 2007b), or non readers (Zavisca, 2005). Another recurring category is of consumers who are neither inactive nor omnivores but rather **in-between**, thus they are termed temperate (García-Álvarez et al., 2007), moderate (García-Álvarez et al., 2007), or paucivores (Alderson et al., 2007; Chan and Goldthorpe, 2007a).

Taken together, this literature indicates that different cultural consumption profiles (in taste or participation) can be systematically identified in different countries. While these profiles differ somewhat across the counties studied, a common finding is that they broadly depict omnivorous consumers, inactive consumers, and those in between.

3. Changes in profiles over time

As described previously, only very few studies have analyzed changes in cultural consumption profiles over time. Most studies have employed data from the United States drawn from the Survey of Public Participation in the Arts (SPPA) that goes back in time to 1982. Notable exceptions include Van Eijck and Van Rees (2000) who analyzed data that goes back to 1975, and identifying citation (2008) who analyzed Danish data starting in 1964. These studies provide mixed results in terms of both the distribution of different cultural consumption profiles and changes in the prevalence of different profiles over time.

Peterson and Kern (1996, p. 903) found that cultural omnivorousness in musical preferences has replaced cultural snobbishness among highbrow individuals in the USA. Later, Peterson (2005) reported that the size of the omnivore group in the United States in 2002 had fallen to its 1982 level

after a significant increase in 1992. This pattern has repeated in a study of omnivorous Dutch newspaper and magazine readers between 1975 and 1995 (Van Eijck and van Rees, 2000), and in research on eclectic cultural participation in Denmark from 1964 until 1998 (identifying citation, 2008). Interestingly, 'both identifying citation' (2008) and Peterson (2005) report a long-term increase in omnivorous cultural consumption from the 1970s until the 1990s, followed by what appears to be a decrease in cultural omnivorousness after 2000. Time trends for other groups are mixed.

Several studies also emphasize qualitative change in cultural consumer profiles over time. Analyses of the SPPA survey from 1992 show a greater average breadth of musical tastes (Peterson and Kern 1996), but not of arts participation (López-Sintas and Katz-Gerro, 2005), compared with data from a previous survey conducted in 1982. In turn, data from 2002 show a greater breadth of arts participation (López-Sintas and Katz-Gerro, 2005). López-Sintas and Katz-Gerro (2005) found an increase over time in the complexity of Americans' consumption patterns: in 1982 four patterns of attendance at the performing arts were enough to depict cultural participation (inactive cultural consumers, lowbrow cultural consumers, exclusive elitist highbrows, and inclusive elitist highbrows); in 1992 a fifth pattern emerged (entertainment); and in 2002 a sixth patterns emerged (quasi-omnivores). Finally, 'identifying citation' (2008) showed a long-term increase in the size of the eclectic cultural participation group in Denmark from 1964 until 1998, followed by a decrease in 2004.

Results from previous research suggest, first, that several qualitatively different cultural consumption profiles, and among these an omnivore profile and an inactive profile, exist in most countries studied. Second, research suggests that the quantitative prevalence of the different profiles in the population changes over time. Most distinctively, the omnivorous cultural consumer has been on the rise over a long period of time, while the inactive consumer group appears to have decreased

in size. Research finds clear patterns of socioeconomic stratification in cultural consumption profiles (Alderson et al., 2007; Coulangeon and Lemel, 2007; García-Álvarez et al., 2007; López-Sintas and Katz-Gerro, 2005). Omnivorous cultural consumption is often associated with higher education, higher income, and an advantaged social class position. By contrast, inactive consumers tend to occupy non-advantaged socioeconomic positions. In the empirical analysis we will investigate if the different prototypical profiles, and among them omnivore and inactive consumers, also exist in Denmark and how they have changed in qualitative and quantitative ways over the period 1975-2004.

4. Research questions

Based on previous research we address three questions, each building on the previous one and all analyzed within a unified methodological framework. The first question concerns qualitative or "between-profile" heterogeneity in cultural consumption. Here, we ask how many distinct consumption profiles can be identified in Denmark and how the relative size of each consumer profile has changed over the period 1975-2004. The answer to this question contributes to existing research on diversity in cultural consumption practices by adding the Danish case, but more importantly, by addressing change in cultural consumption patterns over time through the analysis of data that pertain to a long time span.

The second question concerns socioeconomic stratification in cultural consumption profiles. Here, we ask how individual association with the different cultural consumption profiles, and change over time in the likelihood of association, depends on education, income, social class position, and other individual characteristics. This research question sheds new light on cross-sectional and temporal social gradients in cultural consumption. It speaks to the core of research on

cultural stratification by delineating the extent to which advantages associated with cultural competencies are distributed unequally among social strata.

The third question concerns "within-profile" heterogeneity in total cultural consumption level. While the first and second research questions address types of cultural consumers and how their consumption profile depends on individual socioeconomic characteristics, the third question is concerned with within-profile socioeconomic heterogeneity in *overall* consumption level (defined as the total number of cultural activities attended within the last year). This means that we not only pay attention to specific consumption combinations but also to the volume of consumption. With the exception of García-Álvarez et al. (2007), no previous study has addressed within-profile socioeconomic heterogeneity in cultural consumption practices, and our study is the first to jointly analyze between- and within-profile socioeconomic heterogeneity in cultural consumption. In doing so, we are able to discuss the way socioeconomic characteristics and time period shape not only which type of cultural consumer individuals are associated with, but also, given one's profile, how much she tends to consume. This approach is novel in cultural stratification research.

5. Data and variables

5.1. Data

The Danish National Institute of Social Research has been collecting data on cultural consumption and participation for the Danish Ministry of Culture since the mid-1960s. Cross-sectional surveys with representative samples of the adult population (16 and older) were carried out in 1975, 1987, 1993, 1998, and 2004, thereby providing information on trends in cultural consumption and participation over a 30 year period. Response rates and sample sizes in the different surveys are as follows: 1975: 74%, N=3723; 1987: 73%, N=3606; 1993: 73%, N=1843;

1998: 68%, N=1566; and 2004: 65%, N=1830.[1] For the empirical analysis we have pooled all survey waves into a single data set which includes 12568 observations.

5.2. Variables

5.2.1. Dependent variables

We employ measures of cultural participation that we consider as capturing actual social action, thus signaling commitment. Cultural participation, more than tastes, is shaped by socio-demographic variables (Warde and Gayo-Cal, 2009) and it is considered a public manifestation of social boundaries in the context of increasingly blurred cultural hierarchies (Holt, 1997). Ten indicators of cultural participation are available in all five surveys. These include frequency of attendance at: the cinema, a classical concert, the opera, a musical/operetta, the ballet, an art museum/gallery, the theatre, a folk music concert, a jazz concert, and a pop concert. These indicators offer an adequate qualitative representation of different fine arts (e.g., opera, ballet) and commercial art (e.g., cinema, pop concert) and their subdivisions into visual arts (art museum/gallery, cinema), auditory arts (folk concert, jazz concert, pop concert), and performance arts (opera, theatre play, ballet). These indicators also cover traditional "highbrow" activities in Denmark such as attending the opera, the ballet, and classical concerts, "middlebrow" activities such as going to an art museum/gallery, to the theater, or to a musical/operetta, and more popular activities such as going to the cinema, a pop concert, or a folk music concert (for a detailed analysis that finds a similar division of cultural consumption practices in Denmark see Prieur et al., 2008).

[1] The first survey was conducted in 1964 but we do not include it in our analysis because it did not list all the dependent variables that we wish to use and that were available in the other surveys.

The wording of questions for all indicators is identical in the 1987-2004 surveys, but differs slightly from that used in the 1975 survey. In 1975, respondents were asked if they had attended the different types of cultural activities (classical concert, opera, theater, and art museum/gallery) "during the last season". From 1987 onwards, respondents were asked how often they had attended the different cultural activities "within the last year". To ensure reasonable comparability across survey years we constructed dummy variables for the indicators, equal to 1 if respondents had gone either "during the last season" (1975) or "in the last year" (1987-2004) and 0 otherwise.

In addition to the separate items, we also created an aggregate scale which summarizes respondents' overall cultural participation level. Unlike the separate items which will be used to identify qualitatively different consumption profiles, the cultural participation scale was constructed to capture purely quantitative differences in total participation levels. The scale sums respondents' (0-1) scores on the ten items and can take values ranging from zero to ten. The marginal distributions of the ten indicators of cultural participation and the means of the cultural participation scale in each survey year are presented in Table 1.

TABLE 1 ABOUT HERE

5.2.2. Independent variables

In addition to dummy variables for each time period (1975, 1987, 1993, 1998, 2004) to capture time trends, we include a range of socioeconomic and demographic variables in the analyses. The socioeconomic variables include family income, education, social class position, and working hours. *Family income* is measured as total gross family income in Danish Kroner (DKK). We use standardized measures of family income to harmonize different ordinal scales across the surveys. *Education* is measured by years of schooling. *Social class* is measured by the Erikson-

Goldthorpe-Portocarero (EGP, see Erikson and Goldthorpe, 1992) class scheme, which, based on occupation, divides respondents into five class categories: managers (and professionals), routine non-manual workers, self-employed workers, skilled workers, and unskilled workers. Since only respondents who are active in the labor market were asked about their occupational position, we created a sixth category called "other/missing" that pertains to respondents with no information on occupational position (for example, the retired, students, or homemakers).[2] Finally, the variable for *working hours* measures respondents' hours of work per week.[3]

Life stage variables include marital status and number of children. *Marital status* is a dummy variable coded 1 for married/cohabitating and 0 otherwise. *Number of children* measures the number of children living in the home of the respondent.

The demographic variables include *sex* (coded 1 for women and 0 for men), and *age* measured in years divided by 10 (for ease of interpretation in the empirical analyses). Finally, we also constructed dummy variables for missing values on family income, education, and working hours.

6. Methodological framework

The empirical analysis focuses on three interrelated questions: (1) which cultural consumption profiles can be identified in the data and how has the size of each profile changed over the period 1975-2004; (2) how does the likelihood of belonging to each cultural consumption profile depend on time period and individual socioeconomic and demographic characteristics; and (3) how does

[2] In the 2004 survey it was not possible to identify managers and this class category was dropped.

[3] Information on working hours was not available in the 2004 survey.

total cultural consumption level (the 0-10 scale) vary within each cultural consumption profile as a function of time period and individual characteristics?

To address these questions, we estimate a multivariate mixture model that jointly estimates all three model components. The first model component identifies the different cultural consumption profiles in the data; the second component identifies *between-profile* variation in profile membership; and the third component identifies *within-profile* variation in overall participation levels.

Following previous studies (e.g., Chan and Goldthorpe, 2007a; Van Rees et al., 1999), we model the first component using Latent Class Analysis (LCA). Here, we use respondents' dichotomous answers on the ten cultural participation indicators to identify latent groups with similar response profiles (Heinen, 1996). This component helps us describe the different cultural consumption profiles in the data.

We model the second component using Latent Class Regression (LCR) (e.g., Alderson et al., 2007; identifying citation, 2008). LCR extends LCA with a multinomial logit regression in which explanatory variables – here time period and individual characteristics – are allowed to affect the probability of belonging to each of the different latent classes (Agresti, 2002). This component, which addresses between-profile heterogeneity, helps us explain change over time in the prevalence of each cultural consumption profile and how individual socioeconomic characteristics predict which cultural profile respondents are associated with.

We model the third component, which addresses within-profile heterogeneity, by means of a linear regression model of overall cultural participation level *within* each of the latent cultural consumption profiles. By estimating a separate regression within each profile we allow for the effect of time period and individual characteristics to be different in each profile or, in other words, we take into account that each profile has a different overall cultural participation level and that this

level might depend on members' socioeconomic characteristics (García-Álvarez et al., 2007 adopt a similar approach).

The three mixture model components: latent class model, latent class regression model, and linear regression within each latent class, are estimated jointly by means of maximum likelihood. In the joint likelihood function each respondent contributes her response on each of the ten cultural participation indicators, her overall score on the cultural participation scale, and her individual socioeconomic characteristics. Furthermore, the dummy variables for each survey year contribute to the likelihood. To simplify the model search we first run basic latent class models to identify the appropriate number of latent cultural consumption profiles in the data (i.e., model component one) and to get good starting values for the full model. We then proceed to estimate the full model which also includes model components two and three. We used the software Mplus to estimate the model parameters.

TABLE 2 ABOUT HERE

7. Results

Table 2 shows descriptive trends over time in the distribution of the ten separate cultural participation items and the aggregate scale summarizing overall cultural consumption level. The table shows several trends: some activities gained popularity from 1975 up to the early or late 1990s and then declined slightly in popularity (art museum, theatre play, jazz concert, folk concert); some activities became increasingly popular over time and stabilized (opera, musical, pop concert, ballet, classical concert); and one item, cinema-going, lost popularity from 1975 until 1993 but then regained popularity. The scale summarizing overall activity level increased statistically significantly

from 1975 to 1987, remained more or less stationary from 1987 to 1998 (means do not differ significantly between these years), and increased again significantly from 1998 to 2004.

TABLE 3 ABOUT HERE

Table 3 shows fit statistics for different models produced by the Latent Class Analysis. The table shows the values of log-likelihood, Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), and the improvement in AIC and BIC by adding one more latent class. We chose the four-class model as our preferred one for two reasons. First, the four-class model captures the substantively different consumption profiles in the data in a parsimonious way (these groups are described in detail below). Models with five or six classes subdivide two of these profiles (middlebrow univore and popular) into relatively similar subgroups. However, these subdivisions do not have any substantive bearing on our estimates of the size and composition of the other latent profiles. Consequently, we see the four-class model as preferable to more complex but less interpretable models. Second, our full model (which includes three model components) is rather complex, since, as described above, in addition to the latent class model, it also includes a latent class regression of group membership on the explanatory variables (between-profile heterogeneity) and a regression of overall cultural consumption level within each consumption profile (within-profile comparison). Consequently, we prefer a parsimonious latent class structure to keep the full model as feasible as possible.

TABLE 4 ABOUT HERE

Table 4 presents estimation results from the four-class model. The table shows the probability of attending each of the ten cultural consumption items conditional on belonging to one of the four consumption profiles and the relative size of each profile-group as a percentage of the sample.

The first profile is labeled *omnivores* because respondents in this group have a medium to high probability of attending all ten activities. Omnivores differ significantly from the other groups in their high probability of attending highbrow activities, such as classical concerts, the opera, and the ballet, but also in their relatively high probability of attending lowbrow activities, such as pop concert or folk music concert, and the highest probability of attending the cinema. The diverse consumption profile of this group was previously documented in many studies (e.g., Chan and Goldthorpe, 2007a, 2007b; Emmison, 2003; Garcia Álvarez et al., 2007; Holbrook et al., 2002; López Sintas and Garcia-Álvarez, 2002; López Sintas and Katz-Gerro, 2005; Van Rees et al., 1999; Warde et al., 1999).

The second profile clusters individuals who prefer attending the cinema, musicals, art museums, and theatre plays. These activities can be viewed as representing a middlebrow taste, different from a highbrow taste (opera, ballet, classical concert). Visiting museums and going to theatre plays are considered middlebrow cultural activities in the Danish context, which can also be seen from the relatively high proportion of respondents who attend these activities (0.32 and 0.23 respectively, see Table 1). We think of this group as *middlebrow univores* who abstain from lowbrow activities and also to a large extent abstain from highbrow activities (although they do have some preference for classical concerts).

The third profile is comprised of individuals who like going to the cinema, to museums, and to jazz and pop concerts. They are also characterized by a lower probability of attending folk music concerts and theatre plays. We suspect that this group could be better identified had we had more detailed information on specific shows/performances, distinguishing between modern art and

classical art, between comedies and classical plays, etc. We label this profile *popular* as those individuals are decidedly non-highbrow in their cultural consumption practices.

Finally, the fourth *limited* profile is comprised of individuals with limited participation in the different cultural activities, with the exception of cinema. This category resonates with earlier reports on paucivores, univores, or inactives (Alderson et al., 2007; Chan and Goldthorpe, 2007a, 2007b).

Looking at the size of the different consumption profiles, we see, as expected, that the largest group is represented by respondents with limited participation in cultural consumption, amounting to 56% of the sample. It is important to emphasize that these are not necessarily individuals who do not engage in cultural activities, they simply do not participate in the activities measured here. The smallest group is the omnivore profile, representing 8% of the sample. Our estimates of the sizes of the omnivore and limited profiles are similar to those reported in other countries. For example, in their analysis of musical tastes in the USA Garcia-Alvarez et al. (2007) report that 8.8% of their respondents could be classified as having omnivorous taste and 55.8% as having limited taste; in their analysis of reading patterns in the Netherlands Van Rees et al. (1999) identify 67% limited-range readers and 4% omnivore readers; finally, Chan and Goldthorpe (2007a) report that 58.6% of their UK sample exhibited limited visual arts consumption while 7% exhibited omnivorous consumption practices.

TABLE 5 ABOUT HERE

Table 5 shows changes in the size of the cultural consumption profiles over the period 1975-2004. Several trends are evident. The size of the omnivore group increases over time. This finding is consistent with previous findings showing that omnivorousness has become more prevalent over

time (Garcia-Alvarez et al., 2007; López-Sintas and Katz-Gerro, 2005; Van Eijck and Van Rees, 2000). The middlebrow univore group doubles its size from 1975 to 1987, remains stable until 1998 and then drops to 10% in 2004. The popular group increases from 11% of the sample in 1975 to 37% in 2004. Finally, the size of the limited group declines steadily over the 1975-2004 period.

TABLE 6 ABOUT HERE

Table 6 shows the results from the full model. As previously stated, this model simultaneously analyzes three dimensions: (1) a latent class segmentation of the respondents into each of the four cultural consumption profiles; (2) a multinomial logit model predicting which latent class respondents belong to as a function of time period and individual socioeconomic characteristics; and (3) a linear regression model within each latent class predicting respondents' overall consumption level as a function of time period and individual characteristics.

Table 6 is divided into two parts. The upper part shows results from the latent class regression predicting latent class membership as a function of time period and individual variables. This is the component dealing with between-group differences because it predicts changing patterns in consumption group membership over time. It also indicates which group respondents are most likely to belong to, given their socioeconomic characteristics. In this model the omnivore profile is the reference group. The regression-based time trend estimates mirror the descriptive trends reported in Table 5. The reference year is 1975, and the table shows the log-odds of belonging to each of the consumption groups (middlebrow univore, popular, and limited) compared to the omnivore group (net of the effect of the individual-level socioeconomic and control variables). In Table 5 we saw that the omnivore profile increased in size from 7 to 18 percent over the period 1975-2004. As a consequence, we see in Table 6 that most of the time dummy variables for the

other consumption groups are negative. These results reflect that, compared to the reference year 1975, the probability of belonging to the middlebrow univore, the popular, and the limited profile in the later years is *smaller* than the probability of belonging to the omnivore group (since the latter grows in size over time).[4]

The effects of the socioeconomic variables, especially education, are quite strong. The probability of belonging to the omnivore profile is strongly positively affected by respondents' education. Respondents with higher education are particularly likely to be omnivores and those with lower education are highly likely to belong to the popular or limited profiles. We also find negative effects of family income on the probability of belonging to the popular and limited profiles, but not on the probability of belonging to the middlebrow univore profile compared to omnivores. This result is interesting and suggests that respondents in the omnivore profile have more economic resources than most other consumption groups, but also that omnivores and middlebrow univores do not differ in terms of family income. The latter finding might be interpreted to suggest that omnivorousness is more closely tied to cultural resources (proxied by education) than to economic resources (proxied by income). This interpretation is further reinforced when we observe that there are some significant social class effects in the contrast between omnivores and middlebrow univores net of family income.

In the contrast between omnivores and the popular and limited groups we find very substantial education, income, and class effects, which suggest that there are strong socioeconomic gradients in cultural consumption practices in Denmark. We also find that, compared to the other groups, omnivores are more likely to be women rather than men, are less likely to be married, and

[4] We also tested for interaction effects between the time dummy variables and the main socioeconomic variables (family income, education, and social class). We did not find any significant interaction effects. This suggests that our time trend estimates are not interlinked with changing socioeconomic effects.

are less likely to have many children. In sum, our "between-profile" analysis has shown that omnivorous cultural consumption became more prevalent over the 1975-2004 period relative to other cultural consumption practices. Furthermore, the analysis has demonstrated that cultural consumption practices have remained strongly delineated by socioeconomic position over the period under study.

In the second, "within-profile" analysis we look at determinants of overall cultural consumption level within each of the cultural consumption profiles. This analysis is informative of whether the different groups have become more or less active over time and whether there is socioeconomic heterogeneity within each group. The dependent variable in this model component is the aggregate scale summarizing respondents' overall cultural consumption. Results are shown in the lower part of Table 6.

The table first reports the mean of the cultural consumption scale in each profile (the grand mean is 2.02). As can be seen, the mean level of cultural participation differs substantially between the four cultural consumption profiles. As expected, total consumption is highest in the omnivore group, with an average of 6.782 of the ten cultural activities attended within the last year. Total consumption is lowest in the limited group, with an average of only 0.568 items attended. The difference in total participation between the omnivores and the limited group is more than 6 points or around 3.3 standard deviations on the cultural participation scale. This difference is very large and corroborates our qualitative segmentation of cultural consumption profiles through latent classes.

Several interesting results emerge from the regressions within each group. First, we observe that total participation has increased substantively over time in the omnivore and limited groups, and to some extent also in the popular group. Consequently, not only has the omnivore profile become more prevalent in Denmark over the period 1975-2004, but during the same period

omnivores have also become more culturally active (García-Alvarez et al., 2007 find a similar pattern in the USA over the period 1982-2002). A similar result applies to the limited and popular groups, although here the increase in total participation is more modest. Surprisingly, total participation has remained unchanged in the middlebrow univore group over the period 1975-2004 (despite the non-trivial changes in the marginal size of this group in the sample).

The second noteworthy result from the within-profile analysis of overall cultural consumption level is the absence of socioeconomic gradients. As can be seen in the lower part of Table 6 in all four groups there are only few significant effects of the socioeconomic and demographic variables on total cultural consumption levels.[5] This result suggests that individual socioeconomic characteristics principally explain *which* cultural consumption profile respondents belong to and, once profile membership has been determined, socioeconomic characteristics do not contribute much to explaining remaining differences in total consumption levels within groups. However, as described above, we observe considerable within-group changes in total consumption over time.

8. Conclusion and discussion

In this paper we propose a new approach to depict cultural stratification. This approach is based on two dimensions. First, cross-time changes in the likelihood that individuals adopt a certain consumption profile depending on time period and socioeconomic characteristics. Second, cross-time changes in total consumption level of individuals within a specific consumption profile, depending on period and socioeconomic characteristics. This approach serves for addressing three main research questions. First, what is the time trend in different patterns of cultural consumption?

[5] We controlled for interactions between the time dummies and the socioeconomic variables (family income, education, social class), but again none were significant.

Second, what are the dimensions in which the patterns change, specifically size and activity level? Third, how exclusive is each consumption pattern in terms of socioeconomic characteristics?

We apply this new approach to cultural stratification on data from a series of surveys on cultural consumption in Denmark 1975-2004. These data have two important advantages: they include a broad spectrum of cultural consumption indicators and they allow us to perform analyses of actual participation and not merely stated preferences. Both these feature are improvements over previous longitudinal studies of cultural stratification.

Our analyses portray different cultural consumption profiles in the data, identify *between-profile* variation in group membership, and identify *within-profile* variation in total participation levels. Using latent class analysis we describe four consumption profiles. The *omnivores* are respondents who are likely to attend all ten activities. *Middlebrow univores* are respondents who have preference for middlebrow activities and are not particularly interested in highbrow or lowbrow activities. The *popular* profile is comprised of respondents who are likely to attend popular activities and abstain from highbrow activities. Finally, the *limited* are not likely to engage in any of the measured activities.

We report several interesting trends with regards to these four consumption profiles. The size of the omnivore group increases over time and more than doubles its size and so does the popular group which triples in size over the period studied; Middlebrow univores increase until the 80s, remain stable and then drop; and the limited group steadily declines. In broad strokes, it seems that over time fewer individuals abstain from cultural participation and fewer individuals exhibit a narrow middlebrow preference.

The analyses of between-group differences reveal that there are significant socioeconomic gradients in cultural participation. First, over time, the probability of falling in one of the non-omnivore groups decreases. Second, association with one of the four consumption profiles is shaped

by socioeconomic variables, in particular education. Individuals with higher education are unsurprisingly more likely to be omnivores and those with lower education are more likely to be in the popular and limited groups. We also find that omnivores and middlebrow univores do not differ in family income, implying that omnivorousness is not necessarily based on material means. The analysis of within-group differences shows that over the period studied, cultural omnivores have become more culturally active, in addition to the increase in the size of the whole group. We also find that changes over time in level of activity within each group are mostly autonomous of socioeconomic effects.

These findings put together provide important additions to current literature on cultural stratification. While most research describes omnivorousness as a phenomenon of the 1990s in which upper status individuals adopt eclectic tastes, we show that omnivorous cultural participation is not a new phenomenon among upscale individuals in Danish society, but rather it was manifested already in the 1970s. We also show that it is worthwhile to gauge activity level among consumption profiles. Thus, we find that not only the size of the omnivore group but also activity level among omnivores has risen with time. While omnivorousness is dependent on education and other stratification variables, activity level is not. This possibly means that the social distinction mechanism operates through the exhibition of eclectic tastes but not through the degree to which individuals actively engage in those tastes.

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Table 1.
Descriptive statistics, means, and standard deviations

	Mean	SD
Cultural consumption:		
Cinema	0.62	0.48
Art museum	0.32	0.47
Theatre play	0.23	0.42
Pop concert	0.20	0.40
Jazz concert	0.18	0.39
Classical concert	0.15	0.35
Musical/operetta	0.12	0.32
Folk music concert	0.12	0.33
Opera	0.06	0.23
Ballet	0.06	0.23
Cultural consumption level	2.02	1.86
Survey year:		
1975	0.30	0.40
1987	0.29	0.45
1993	0.15	0.35
1998	0.12	0.33
2004	0.14	0.35
Family income (standardized)	0	1
Missing data on family income	0.20	0.40
Education	10.79	2.76
Missing data on education	0.08	0.27
Social class:		
Unskilled worker	0.12	0.33
Skilled worker	0.08	0.27
Self-employed	0.09	0.29
Routine non-manual	0.23	0.42
Manager	0.10	0.29
Missing/other	0.38	0.49
Married (= yes)	0.65	0.48
No. of children	0.89	1.17
Sex (= female)	0.50	0.50
Age/10	4.34	1.66

Note: N = 12568.

Table 2.
Means and standard deviations for the analysis variables

	1975	1987	1993	1998	2004
Cultural participation indicators					
Cinema	0.70 (0.46)	0.57 (0.49)	0.51 (0.50)	0.59 (0.49)	0.67 (0.47)
Classical concert	0.06 (0.24)	0.13 (0.34)	0.15 (0.36)	0.16 (0.37)	0.14 (0.34)
Opera	0.02 (0.13)	0.07 (0.26)	0.09 (0.28)	0.08 (0.26)	0.07 (0.25)
Musical/operetta	0.02 (0.15)	0.16 (0.37)	0.15 (0.36)	0.15 (0.38)	0.19 (0.34)
Ballet	0.02 (0.13)	0.08 (0.28)	0.05 (0.22)	0.06 (0.24)	0.09 (0.29)
Art museum	0.22 (0.42)	0.39 (0.49)	0.44 (0.50)	0.32 (0.47)	0.28 (0.45)
Theatre play	0.16 (0.36)	0.32 (0.47)	0.23 (0.42)	0.24 (0.43)	0.22 (0.42)
Folk music concert	0.08 (0.27)	0.15 (0.35)	0.14 (0.35)	0.15 (0.36)	0.10 (0.31)
Jazz concert	0.10 (0.29)	0.22 (0.41)	0.25 (0.43)	0.28 (0.45)	0.12 (0.32)
Pop concert	0.12 (0.33)	0.19 (0.39)	0.17 (0.38)	0.24 (0.43)	0.37 (0.48)
Mean consumption level (0-10 scale)	1.51 (1.40)	2.23 (2.04)	2.20 (2.01)	2.24 (1.96)	2.66 (1.97)

Table 3.
Fit statistics for different model specifications

No. classes	LogL	AIC	BIC	Improvement in AIC by adding one more class	Improvement in BIC by adding one more class
2	-47153	94349	94505		
3	-46375	92814	93051	1535	1454
4	-46166	92419	92737	395	314
5	-46019	92147	92547	272	190
6	-45925	91981	92462	166	85
7	-45871	91895	92458	86	4
8	-45827	91828	92471	67	-13

Note: LogL = Model log likelihood, AIC = Akaike Information Criterion, BIC = Bayesian Information Criterion.

Table 4.
Results from latent class analysis with four classes

Cultural Consumption Group	Omnivore	Middlebrow univores	Popular	Limited
Cinema	0.90	0.63	0.87	0.47
Classical concert	0.64	0.29	0.16	0.04
Opera	0.46	0.17	0.01	0.00
Musical/operetta	0.55	0.43	0.09	0.01
Ballet	0.45	0.14	0.02	0.00
Art museum/gallery	0.90	0.57	0.39	0.15
Theatre play	0.84	0.65	0.27	0.05
Folk music concert	0.38	0.13	0.25	0.03
Jazz concert	0.53	0.01	0.51	0.02
Pop concert	0.38	0.09	0.50	0.07
Class size	*0.08*	*0.11*	*0.25*	*0.56*

Note: Table shows conditional probabilities of attending the different cultural activities given membership of the different cultural profiles.

Table 5.
Marginal sizes of the latent classes over time (percentages)

	Omnivore	Middlebrow Univores	Popular	Limited
1975	7	7	11	75
1987	8	14	27	51
1993	13	14	26	48
1998	11	14	27	48
2004	18	10	37	35

Table 6.
Results from full model, parameter estimates with standard errors in parentheses

	Latent class regression "between group" part			
	Omnivore (ref)	Middlebrow Univores	Popular	Limited
Year:				
1975		-	-	-
1987		-0.367 (0.108)***	-1.895 (0.209)***	-0.486 (0.102)***
1993		-0.549 (0.246)*	-2.257 (0.200)***	-0.332 (0.209)
1998		-0.620 (0.247)*	-1.735 (0.185)***	-0.337 (0.204)#
2004		-0.347 (0.205)#	-1.674 (0.200)***	-0.929 (0.183)
Education		-0.108 (0.020)***	-0.252 (0.020)***	-0.374 (0.020)***
Family income		-0.093 (0.080)	-0.246 (0.075)***	-0.353 (0.073)***
Social class				
Unskilled worker		-	-	-
Skilled worker		0.034 (0.292)	0.072 (0.284)	-0.103 (0.285)
Self-employed		-0.674 (0.262)*	-0.998 (0.252)***	-1.017 (0.250)***
Routine non-manual		-0.423 (0.237)#	-0.894 (0.229)***	-1.154 (0.228)***
Manager		-0.692 (0.249)**	-1.259 (0.242)***	-1.679 (0.244)***
Married		0.304 (0.134)*	0.685 (0.117)***	0.922 (0.114)***
No. children		0.130 (0.059)*	0.297 (0.055)***	0.431 (0.055)***
Female		-0.367 (0.108)***	-0.511 (0.105)***	-0.486 (0.102)***
Age/10		-0.172 (0.110)	-0.320 (0.087)***	0.285 (0.085)***
Constant		3.760 (0.807)***	7.099 (0.702)***	4.489 (0.687)***
	Linear regression of consumption level "within group" part			
	Omnivore	Middlebrow Univores	Popular	Limited
Mean consumption	6.782	4.424	2.395	0.568
Year:				
1975	-	-	-	-
1987	0.698 (0.177)***	-0.009 (0.065)	0.064 (0.026)*	0.091 (0.023)***
1993	0.550 (0.160)***	-0.131 (0.073)#	0.110 (0.036)**	0.154 (0.026)***
1998	0.761 (0.238)***	0.018 (0.096)	0.090 (0.034)**	0.153 (0.029)***
2004	0.732 (0.204)***	0.015 (0.101)	0.232 (0.037)***	0.184 (0.049)***
Family income	0.011 (0.062)	0.004 (0.041)	0.016 (0.012)	0.034 (0.013)**
Education	0.024 (0.025)	0.045 (0.011)***	0.036 (0.004)***	0.036 (0.005)***
Social class				
Unskilled worker	-	-	-	-
Skilled worker	-0.717 (0.299)*	-0.239 (0.122)*	0.006 (0.035)	-0.060 (0.043)
Self-employed	-0.009 (0.297)	-0.038 (0.131)	0.029 (0.034)	0.028 (0.033)
Routine non-manual	-0.216 (0.291)	-0.023 (0.102)	0.059 (0.031)#	0.000 (0.033)
Manager	-0.260 (0.303)	0.016 (0.120)	0.102 (0.039)**	-0.001 (0.046)
Married	-0.175 (0.130)	-0.250 (0.068)***	-0.055 (0.022)*	0.023 (0.020)
No. children	-0.030 (0.053)	-0.024 (0.027)	-0.023 (0.009)**	-0.026 (0.009)**
Female	0.092 (0.106)	0.031 (0.049)	0.021 (0.018)	0.049 (0.018)**
Age/10	-0.089 (0.092)	-0.101 (0.038)**	-0.015 (0.006)*	0.010 (0.007)
Constant	5.721 (0.654)***	3.310 (0.227)***	1.056 (0.054)	-0.161 (0.068)*

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ # $p < 0.10$ (two-tailed tests). Log-likelihood: -55135. Parameter estimates in "between group" model (upper panel) are logit coefficients and estimates in "within group" model (lower panel) are linear regression coefficients.