UNIVERSITÀ DEGLI STUDI DI PADOVA

Dipartimento di Scienze Economiche "Marco Fanno"

ATTENDANCE TO CULTURAL EVENTS AND SPOUSAL INFLUENCES: THE ITALIAN CASE

CARLOFILIPPO FRATESCHI
University of Padova

ELISABETTA LAZZARO
University of Padova

July 2008

"MARCO FANNO" WORKING PAPER N.84

Attendance to cultural events and spousal influences: the Italian case

Carlofilippo Frateschi and Elisabetta Lazzaro*

Abstract

In cultural consumption it is quite reasonable to expect that the formation and the evolution of preferences, and the related individual choice behaviour, is affected by various interactions within families, peer and other social groups. Our investigation focuses on a specific form of "indirect" interaction effect, that is the reciprocal influence that a married person's preferences and characteristics can have on the cultural consumption of her/his partner. Using the last two available nationwide cross-section datasets on the leisure activities of the Italian population (ISTAT, 1995 and 2000), we estimate the mutual influence of spouses's educational and cultural background, besides other factors, on the consumption of three kinds of cultural activities, namely museum/exhibition, theatre, and opera and classical music concerts.

Keywords: Mutual social interactions, cultural consumption.

JEL classification: D79, D12, Z11.

1 Introduction

Most cultural goods can be classified as experience goods. Arts consumers learn how to satisfy their preferences only after having experienced them, as opposed to "search goods", for which they can evaluate such a fit prior to their purchase (Nelson, 1970). This peculiarity may cause strong informational asymmetries and increase the degree of uncertainty associated with the consumption of these goods and services.

Individuals may try to reduce uncertainty about their expected utility by resorting to some form of screening behaviour, where replicating the choices of friends, peers, relatives or neighbours takes a significant role. As Verdaasdonk (2003: 362) writes, "... the (partial) similarity between the pastimes members of specific groups indulge in may be seen as the outcome of their economising on the substantial opportunity costs of identifying on one's own enticing products in the huge supply offered by the numerous sectors of culture." In art consumpion herd behaviour also constitutes a remedy, alternative to reliance on experts and critics, against short-run ignorance and uncertainty of consumers about quality, especially in the case of live performances and in presence of positive risk aversion (Lévy-Garboua and Montmarquette, 2002: 11).

Imitation and social pressures in cultural consumption may explain the similarity of tastes and behaviors in the cultural and artistic domain and the process of Pierre Bourdieu's 'class reproduction': "once social classes evolve distinctive cultural preferences, family socialization will be a powerful mechanism in ensuring that class-related artistic traditions are maintained from generation to generation" (Di Maggio

* Department of Economics "Marco Fanno", University of Padova -Via del Santo, 33 - 35122 Padova, Italy. E-mail: carlo.frateschi@unipd.it; elisabetta.lazzaro@unipd.it

and Useem, 1978: 142).

Overall, the consumption of cultural and artistic goods and services can be regarded as belonging to the wide group of activities which take place in public and are therefore subject to strong social pressures (Becker and Murphy, 2000).[1] Similarly to health-related behaviour described by Cutler and Glaeser (2007), cultural consumption responds to social interaction motives. Not only culture-related activities are often more enjoyable in social situations, but very often peers can offer useful insights and information on their anticipated qualities and expected utility. Finally, peer groups are essential in forming the social consensus on the appropriateness of many kinds of cultural consumption.

Even if several features of cultural goods and services provide sound reasons for treating their consumption decisions by mean of endogenous effects, the existing theoretical and empirical economic literature merely focuses on the effects of individual characteristics (socio-demographic, economic, educational, etc.) or individual past consumption decisions and previous art exposure or instruction. So far, studies on the impact of an adult's peer group in arts participation are still lacking, since the few contributions considering social interactions merely control for some proxies of intergenerational and unidirectional transmission of cultural appreciation, such as early upbringing or family characteristics.[2]

Endogenous interactions can be of indirect and direct nature: "It is one thing to say that my preferences depend on your actions, and another to say that my preferences depend on your preferences" Manski (2001: 121). In the first case such interactions have an indirect character, since they are contingent upon some degree of awareness of other individuals' behavior, and may take the form of imitation, learning by observing, information sharing, or pressures to conform. They are easily observable within peer groups or wider social formations whenever fashion, fads, informational cascades or other behavioral contagions arise. In the second case, where one's preferences are (re)shaped in accordance to the preferences of someone else, they have a more direct nature. In fact they imply a rather deeper form of dependence, which could range from a passive behavioural adjustment to an alteration entailing a certain degree of readaptation, revision, or even conversion of personal tastes.

Our contribution tackles the reciprocal influence that individual preferences and characteristics – in particular the educational and cultural background – can have, among other factors, on the cultural consumption on her/his spouse. What we are interested in, therefore, is a specific form of influence which can be labeled as an horizontal interaction, in analogy with the distinction – introduced in the study of anthropological and biological cultural evolution by Cavalli-Sforza and Feldman (1981) – between the horizontal cultural transmission, taking place among individuals of the same generation, and the vertical one, which captures the transmission of cultural traits from parents to offsprings.

---

[1] "The activities, behavior, and consumption most subject to strong social pressures from peers and others are those that take place publicly. Such group consumption includes drinking at bars, smoking and eating at parties, playing tennis and other sports, attending the theater, movies, or rock or symphonic concerts, eating at restaurants, attending school, praying and socializing at churches, visiting museums, working in teams and other groups, participating in strikes and other trade union activities, searching for marriage mates at social gatherings, caring for lawns visible to neighbors, decorating homes and offices, driving on one or the other side of roads, and being exposed to the publicity given to those who are punished for serious vioaltions of laws" (Becker and Murphy 2000: 4).

[2] See, for instance, Ganzeboom (1989), Peterson et al. (2000), Lewis and Seaman (2004), Borgonovi (2004), Ateca-Amestoy (2008).

The relationship between wives and husbands looks twofold "strategic". In fact, spousal relationships are particularly influential because they are usually long-term and, especially, voluntary. In such a situation "just as an individual's education and art socialization level helps predict one's later arts participation, one's spouse's characteristic may both reinforce one's predisposition and provide a surrogate background leading to greater participation." (Upright 2004: 134).

Notice that not all cultural goods show equally strong experience attributes. For instance, live theatrical performances is much more prone to such problematic characteristic than recorded music (Della Valle, 2002). We therefore distinguish between three different kinds of "highbrow" cultural activities: museums/exhibitions visiting; theatre attendance; attendance of opera or classical music concerts.

In the next Section we will overwiev the previous literature on social interactions which can be particular enlightening in the analysis of cultural consumption. Section 3 will introduce the dataset. In Section 4 we will discuss our model. Section 5 will present the main results. Section 6 will conclude the paper.

2 Social interactions and heterogamy

The growing interest among social scientists and, in particular, economists in the interdependence of preferences and behaviour has generated a burgeoning body of literature, where social interaction effects have been applied to such diverse matters as school choice and school achievement, employment patterns, participation in welfare programs, smoking behaviour, crime rates, residential segregation, fertility rates, savings behaviour or asset market volatility.[3]

Inviduals can be conceptualised as decision-makers being endowed with preferences (utility functions), forming expectations (subjective probability distributions), and facing constraints (choice sets). In very general terms, some forms of endogenous interaction can be assumed, when an agent's preferences, expectations or constraints, and therefore her decisions, either indirectly depend on the observation of other agents' actions, or are directly influenced by somebody's else preferences, expectations or constraints (Manski, 1993 and 2000; Kapteyn et al., 1997; Glaeser and Scheinkmann, 2000 and 2001; Brock and Durlauf, 2001; Grodner, 2003).

Both indirect and direct endogenous interactions must take place within a socially and/or spatially determined distance that defines the relevant reference group. Depending on the social or geographical proximity where individual preferences or actions are influenced, we can distinguish between family, relatives, friends, school mates, co-workers, neighbours, community, up to, in some cases, the whole society. Other things being equal, the wider the radius of the relevant social environment, the higher will be the likelihood that the feedback loop created by the interdependence of preferences, choices or behaviors could give rise to large shifts in aggregate outcomes through a social multiplier effect. On the other hand, it could be assumed that an inverse relationship exists between the dimension of the reference social group and the possibility of a direct – as opposed to an indirect – form of interaction.

In a very small group with a high degree of proximity, such as a married couple, it is possible to detect (or at least hypothesise) strong direct interdependence effects

[3] See, for instance, Bauman et al. (1990), Case and Katz (1991), Evans et al. (1992), Glaeser et al. (1996), Katz et al. (2001), Jackson et. al (1997), Farkas et al. (1999), Topa (2000), Gaviria and Raphael (2001), Sacerdote (2001), Cipollone and Rosolia (2003).

which are mediated and reinforced, among other things, by various degrees of verbal communication, shared responsibilities, joint objectives, similar ways of life, common experiences, etc.

In one of the latest surveys on the empirical literature, Soetevent (2006) examines the problems and difficulties that still loom considerable in any proper attempt at detecting and measuring social interactions: first and foremost, the identification problem originally put forward by Manski (1993)[4]. He concludes suggesting that further advances in these studies can be achieved if "first, they will focus on small-scale interactions mechanisms; and second, they will give detailed information on each of the agents who participates in such a small-scale interaction".[5]

The research strategy adopted by Cutler and Glaeser (2007) on social interactions and smoking is coherent with both previous suggestions, since it focuses on a very narrow and distinctive case of behavioral interdependence, that is in married couples, where they investigate the influence of one spouse's smoking decisions on the smoking propensity of the other spouse. Health-related activities have many things in common with another from of activity, namely culture-related activities, among which some form of addictiveness in consumption is probably the most prominent. Indeed, the strong parallelism between the two sets of behaviors was at the core, for instance, of the classical Stigler and Becker's (1977) treatment of harmful as opposed to beneficial addiction.

In terms of a possible relationship between associates and returns to education and increasing human capital accumulation, Benham (1974: S58) stresses how "an individual's effective stock of acquired abilities will be a function not only of his own formal education and job experience, but also of associates' education, the incentives the associates have to share their knowledge, and the length of the association".[6] He estimates a married man's earnings also by mean of her wife's stock of human capital (namely her years of schooling) by incorporating his wive's education into a model previously developed by Mincer (1970) on returns to men's education.

The issue of educational heterogeneity between spouses – referred to as "heterogamy" – has been widely studied in the last decades, mostly by demographers and sociologists who have investigated the main structural causes and social consequences of hypergamous, homogamous and hypogamous marriages,[7] both in cross-country or single country studies.[8] The literature on the subject, has further

---

[4] When it comes to estimating econometrically the existence and extent of endogenous effects, one encounters an identification problem. This problem, labeled "reflection problem" by Manski (1993), arises because mean behavior in the group is itself determined by the behavior of group members. Hence, data on outcomes do not reveal whether group behavior actually affects individual behavior, or group behavior is simply the aggregation of individual behaviors.

[5] p. 221.

[6] The author adds that "marriage is distinguished from most other nonmarket associations in that there are greater incentives to share acquired abilities within the household: both current and future benefits of increased knowledge by either family member are typically shared. The costs of sharing would also appear to be lower because the transactions cost of communication within the household, given the proximity of spouses, is likely to be less than in other types of associations" (Benham, 1974: S58).

[7] An "hypergamous marriage" (sometimes called an "upward marriage") exists, from the point of view of one of the spouses, when the person marries someone with a higher educational attainment. Hypogamous (or "downward") marriages describe obviously the opposite situation.

[8] See, among others, Rockwell, 1976; Mare, 1991; Kalmijn, 1991; Liao and Stevens, 1994; Smits et al., 1998; Schwartz and Mare, 2005. A very useful and well-documented comparative analysis is contained in a book, edited by Hans-Peter Blossfeld and Andreas Timm, analyzing in separate chapters the long-

extended its scope towards estimating educational heterogamy on as diverse phenomena as smoking or excessive alcohol consumption (Monden et al., 2003), risk of mortality (Bosma et al. 1995), voting behavior (De Graaf and Heath, 1992), occupational attainment (Bernasco et al. 1998), or life satisfaction (Groot and Massen van den Brink, 2002).

term evolution of educational heterogeneity in 11 european countries, plus Israel and the USA (Blossfeld and Timm, 2003).

3 Data

Our data originate from two large datasets on the leisure activities of the Italian population collected by ISTAT in 1995 and 2000. The two surveys carried out by the Italian National Institute for Statistics in 1995 and 2000 (*Indagine Multiscopo sulle famiglie "Tempo libero e cultura", 1995; Indagine Multiscopo sulle famiglie "I cittadini e il tempo libero", 2000)* had the aim of acquiring information on the leisure activities of the Italian population, with an emphasis on cultural consumption and the use of information technologies.

These surveys were conducted with a two-stage stratified sampling scheme, and reached a total of, respectively, 59,916 individuals in 1995 and 54,239 in 2000. The first part of both enquiries relates to some basic demographic and socioeconomic characteristics, such as age, sex, marital status, education, family composition, occupational condition, professional statuts, sector of economic activity, area of residence, and municipality's size. However, no figures are provided about the family income.[9]

The main section of the two surveys include respondents' cultural habits, preferences and practices in various areas, such as cinema, theatre, visual arts, performing arts, music, museums etc. In the case of attendance to "highbrow" cultural activities, each individual was asked whether and how often in the previous twelve months s/he attended or visited, respectively: a) concerts of classical music or opera; b) theatre plays; c) museums or temporary art exhibitions.

Table 1: Attendance rates in 1995 and 2000

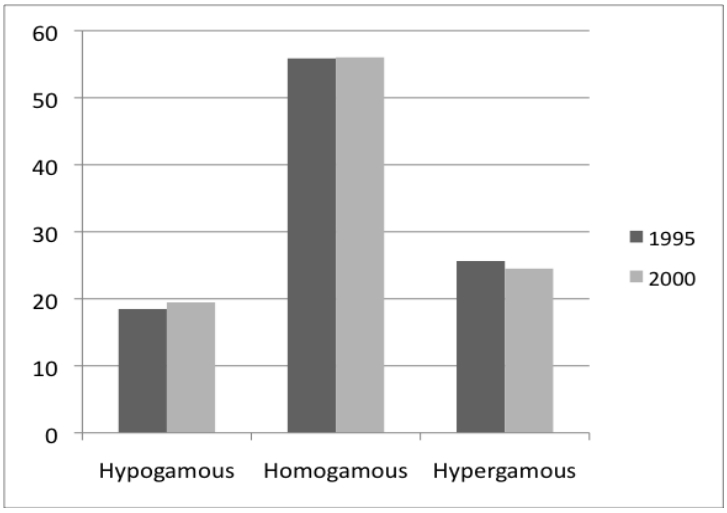
	Husbands	Wives	Total
1995			
Museums	27.0	26.8	26.9
Concerts	8.4	8.6	8.4
Theatre	13.5	16.1	14.8
2000			
Museums	30.7	30.9	30.8
Concerts	6.3	6.6	6.4
Theatre	11.6	14.4	13.0

Since our principal interest lies in the interactions among spouses, for both years we created a subset containing only data referring to married couples living together. The original datasets were thus reduced to, respectively, 14,843 (for 1995) and 13,123 (for 2000) matched couples, respectively 49.5% and 48.4% of interviewed people.

[9] The 1995 survey contained no question on this matter, whilst the 2000 survey did contain such a question. However, also in this second case the relevant information appears neither in the ISTAT publications illustrating the aggregate results of the survey, nor in the raw data files (where the relevant field in the individual records is emptied).

Table 1 shows their participation rates in the two considered years, where husbands and wifes show common patterns, with the exception of theatre, clearly more attended by wifes. Overall, spouses increased museum attendance, but they decreased their participation in the performing arts (concerts and theatre).

Figure 1: Shares of educationally heterogamous and homogamous marriages in Italy, 1995 and 2000



Note: heterogenous marriages are here defined with reference to wifes: "hypogamous" indicates a wife's higher educational attainment than her husband and, viceversa, "hypergamous" indicates a husband's higher educational attainment.

In Italy like in many countries the levels of educational attainment of husbands and wifes are not always the same. Only in some cases we do encounter educational homogamous marriages. Remarkably, our data confirm rather slow structural changes in Italy in terms of educational differences between spouses. As we can see in Figure 1, between 1995 and 2000, the share of heterogamous marriages remained almost the same, respectively, 44.1 percent in 1995 and 44 percent in 2000. In particular, hypogamous marriages (i.e. where the husband's educational attainment is lower than his wife) increased from 18.5 to 19.5 percent, while more "traditional" hypergamous ones declined from 25,6 to 24,5 percent.

4 The model

The likelihood of attending a cultural activity by an individual is explained by the level of educational attainment of her/his spouse, besides socio-demographic individual characteristics. Following Upright (2004), we estimated a series of multinomial logistic regressions, separately for men and women, and for each of the three types of cultural events attendance, namely museums, concerts, theatre. By running separate regressions, we aim at isolating assumed distinct participation patterns by gender and by type of artistic activity.

The dependent variable, arts attendance, can take one of the three following categories:

1) Not attending;

2) Attending alone (if the individual declared to have attended at least once a particular kind of event but her/his spouse did not);

3) Both attending (if both the husband and the wife declared so);

where the control is not attending.

Notice that the last case does not necessarily mean that the spouses attended together. In fact, all we know is that both members of the couple have declared to have attended at least once that particular kind of cultural event.

Explanatory variables and underlying hypotheses include:

- The highest educational level obtained by the individual and her or his spouse. These are continuous variables ranging from 1 (= no educational certificate, cannot read or write) to 9 (= Master degree or PhD degree).[10] We expect a higher participation associated with higher individual and spouse's education. [11]

- Age (continuous) and age squared, which should be positively correlated with attendance.

- Presence of children in the family (0–5 years or 6–13 years old). Non parental couples and, to a less extent, older children should allow more arts involvement.

- Size of the municipality of residence: (less than 10,000 inhabitants; between 10,000 and 50,000 inhabitants; metropolitan areas and their suburbs). Given a higher arts supply, metropolitan areas in Northern and Central Italy should favour a higher attendance.

- Macroregion of residence (north-west, north-east, centre, south, islands), where we axpect a higher participation from people living the Northern and Central part fo the country.

- A group of job dummies (entrepreneurs, managers, or professionals; white-collar workers and similars; self-employed and similars; blue-collar workers or others in subordinate position). Even if work activities characterized by important degrees of intensity and responsibility should preclude arts participation because of opportunity costs of time, their associated higher income should favour it.

Note that, when in a couple the wife's and the husband's levels of educational attainment of are identical, the two variables take the same value. Therefore, in case of perfectly identical educational levels for the two spouses, we had to drop the completely redundant "added" variable perfect multicollinearity. In this regard, that the whole exercise is contingent upon the existence of an "adequate" degree of educational heterogamy in the society under scrutiny (and consequently in the representative statistical samples collected at the national level and then used for the estimates). Therefore, we here evaluate whether it is possible to detect significant

[10] The complete list, for the 2000 survey is the following: 1) No educational certificate, cannot read or write; 2) No educational certificate, but can read and write; 3) Primary school certificate; 4) Lower secondary school certificate; 5) Secondary school diploma (2-3 years course); 6) Secondary school diploma (4-5 years course); 7) University degree – first level; 8) University degree – (laurea); 9) Master Degree or PhD Degree. For the year 1995 the list ends at the level 8, as consequently does the upper limit of the range for the variable.

[11] Note that, when in a couple the wife's and the husband's levels of educational attainment of are identical, the two variables take the same value. Therefore, in the very hypothetical case of perfectly identical educational levels for the two spouses in all couples (complete educational homogamy), we should have to drop the completely redundant "added" variable because of perfect multicollinearity. In this regard, the whole exercise is contingent upon the existence of an "adequate" degree of educational heterogamy in the society under scrutiny, which happens to be the case in Italy and in the many other countries.

effects on the kind and degree of cultural consumption due to the existence of some degree of educational heterogamy.

5 Results

Tables 2 and 3 display main results for museum, concert and theatre individual and shared participation, respectively in 1995 and 2000. In general, in the whole considered period, we obtained strongly significant positive effects of individual education levels on both individual and shared participation to all activities. In particular, controlling for spouses' education did also bring significantly positive results, even with some exceptions.[12]

Table 2: Individual and joint arts attendance of wives and husbands, 1995.

	MUSEUMS				CONCERTS				THEATRE			
	Wives		Husbands		Wives		Husbands		Wives		Husbands	
Depending variables Explanatory variables	Attending alone	Both attending	Attending alone	Both attending	Attending alone	Both attending	Attending alone	Both attending	Attending alone	Both attending	Attending alone	Both attending
Own education	1.452***	1.417***	1.416***	1.330***	1.409***	1.321***	1.213***	1.325***	1.469***	1.341***	1.286***	1.290***
	(0.085)	(0.049)	(0.062)	(0.033)	(0.101)	(0.069)	(0.069)	(0.053)	(0.085)	(0.053)	(0.087)	(0.038)
Spouse's education	0.992	1.336***	0.931*	1.381***	1.086	1.449***	0.993	1.413***	1.150***	1.334***	1.021	1.363***
	(0.050)	(0.038)	(0.040)	(0.0314)	(0.066)	(0.065)	(0.053)	(0.0507)	(0.0563)	(0.0445)	(0.066)	(0.0362)
Age	1.059	1.035	1.115**	1.049**	0.972	0.989	1.093	0.972	1.134**	0.973	1.011	0.990
	(0.055)	(0.032)	(0.050)	(0.024)	(0.051)	(0.046)	(0.063)	(0.033)	(0.0674)	(0.0323)	(0.062)	(0.026)
Age squared	1.000	1.000	0.999**	0.999**	1.001	1.000	0.999	1.001	0.999	1.001	1.000	1.000
	(0.001)	(0.004)	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.000)
No child./child. >13 ys old	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Children 0 to 5 years old	0.595***	0.642***	0.956	0.617***	0.758	0.619***	0.928	0.657***	0.598***	0.605***	0.962	0.597***
	(0.097)	(0.056)	(0.111)	(0.041)	(0.153)	(0.092)	(0.147)	(0.078)	(0.103)	(0.065)	(0.187)	(0.050)
Children 6 to 13 years old	1.121	1.035	1.199*	1.018	1.067	0.835	0.913	0.917	1.091	0.966	1.071	0.888*
	(0.148)	(0.080)	(0.122)	(0.0593)	(0.178)	(0.106)	(0.125)	(0.0917)	(0.149)	(0.0893)	(0.176)	(0.0636)
Smal city	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mediumcity	0.794*	0.812***	0.654***	0.793***	0.940	0.886	0.849	0.992	0.967	1.312***	0.836	1.267***
	(0.106)	(0.063)	(0.068)	(0.047)	(0.163)	(0.112)	(0.117)	(0.100)	(0.133)	(0.128)	(0.140)	(0.095)
Metropolitan	0.614***	0.766***	0.656***	0.763***	1.015	0.746*	0.877	0.829	0.888	2.288***	1.095	2.053***
	(0.115)	(0.079)	(0.090)	(0.059)	(0.222)	(0.126)	(0.157)	(0.111)	(0.167)	(0.267)	(0.230)	(0.182)
Centre	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
North-West	1.242	1.158	0.987	1.237***	1.208	0.772	0.898	0.853	1.207	0.727***	0.879	0.753***
	(0.226)	(0.117)	(0.139)	(0.099)	(0.265)	(0.128)	(0.174)	(0.117)	(0.212)	(0.0885)	(0.206)	(0.073)
North-East	1.861***	1.682***	1.308*	1.807***	1.496*	1.417**	1.282	1.577***	1.525**	1.240*	1.222	1.291***
	(0.328)	(0.169)	(0.179)	(0.141)	(0.325)	(0.216)	(0.234)	(0.197)	(0.264)	(0.145)	(0.274)	(0.120)
South	0.616**	0.505***	0.525***	0.477***	0.575**	0.509***	0.814	0.530***	0.373***	0.552***	0.831	0.584***
	(0.121)	(0.055)	(0.073)	(0.038)	(0.143)	(0.088)	(0.149)	(0.073)	(0.080)	(0.069)	(0.180)	(0.055)
Islands	1.090	0.510***	0.463***	0.565***	0.412**	0.546**	0.647	0.651**	0.455**	0.519***	0.586	0.579***
	(0.275)	(0.083)	(0.098)	(0.062)	(0.174)	(0.142)	(0.179)	(0.124)	(0.146)	(0.0956)	(0.197)	(0.076)
White collar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entrep./Manag./Prof.l	0.886	0.940	1.034	1.111	0.492**	1.583***	1.318*	1.402***	1.018	1.208	1.067	1.154*
	(0.187)	(0.117)	(0.143)	(0.0859)	(0.140)	(0.239)	(0.221)	(0.160)	(0.199)	(0.158)	(0.220)	(0.0998)
Self employed	0.594***	0.793**	0.781*	0.830**	0.553**	1.129	0.738	0.990	0.842	0.801*	0.801	0.898
	(0.111)	(0.0806)	(0.108)	(0.0635)	(0.138)	(0.188)	(0.141)	(0.134)	(0.156)	(0.102)	(0.177)	(0.0848)
Blue collar	0.705*	0.732***	0.683***	0.641***	0.678	0.596**	0.692**	0.671**	0.712*	0.688***	0.613**	0.650***
	(0.128)	(0.0763)	(0.0922)	(0.0493)	(0.169)	(0.128)	(0.129)	(0.104)	(0.146)	(0.0947)	(0.140)	(0.0657)

Note: coefficients are exponentiated. Standard errors are in parentheses. *, ** and *** denotes significancy at, respectively, 90%, 95% and 99% level.

[12] Overall, similar results were obtained by expressing individual and spouses' educational attainment (or their difference) by groups of dummy variables.

Table 3: Individual and joint arts attendance of wives and husbands, 2000.

	MUSEUMS				CONCERTS				THEATRE			
	Wives		Husbands		Wives		Husbands		Wives		Husbands	
Depending variables / **Explanatory variables**	Attending alone	Both attending	Attending alone	Both attending	Attending alone	Both attending	Attending alone	Both attending	Attending alone	Both attending	Attending alone	Both attending
Own education	1.440***	1.386***	1.313***	1.316***	1.351***	1.208***	1.282***	1.449***	1.374***	1.236***	1.227***	1.303***
	(0.075)	(0.048)	(0.052)	(0.034)	(0.095)	(0.084)	(0.079)	(0.076)	(0.074)	(0.054)	(0.072)	(0.044)
Spouse's education	0.901**	1.290***	0.954	1.329***	1.099	1.461***	1.006	1.186***	1.063	1.415***	1.028	1.275***
	(0.043)	(0.039)	(0.038)	(0.032)	(0.068)	(0.090)	(0.060)	(0.058)	(0.050)	(0.054)	(0.058)	(0.041)
Age	1.079	1.056	1.071*	1.057**	1.009	1.153	1.072	1.009	1.105	1.141**	1.009	1.049
	(0.057)	(0.037)	(0.042)	(0.028)	(0.075)	(0.100)	(0.072)	(0.053)	(0.067)	(0.059)	(0.061)	(0.039)
Age squared	0.999	0.999	0.999	0.999**	1.000	0.999	1.000	1.000	0.999	0.999**	1.000	1.000
	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
No child./child. >13 ys old	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Children 0 to 5 years old	0.700**	0.506***	0.992	0.592***	0.715	0.641**	0.943	0.724*	0.632***	0.563***	0.937	0.544***
	(0.103)	(0.048)	(0.116)	(0.044)	(0.151)	(0.141)	(0.183)	(0.126)	(0.103)	(0.072)	(0.157)	(0.058)
Children 6 to 13 years old	1.234*	1.227**	0.829*	1.126*	1.118	0.774	1.288*	0.815	1.335**	0.899	1.093	0.867*
	(0.150)	(0.099)	(0.082)	(0.069)	(0.190)	(0.136)	(0.197)	(0.113)	(0.170)	(0.095)	(0.156)	(0.075)
Smal city	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mediumcity	0.871	0.954	0.866	0.894*	0.773	1.018	0.894	1.027	1.001	1.098	1.396**	1.200*
	(0.105)	(0.077)	(0.084)	(0.056)	(0.138)	(0.184)	(0.138)	(0.148)	(0.131)	(0.124)	(0.212)	(0.112)
Metropolitan	0.911	1.108	0.699***	0.930	1.292	1.065	0.598**	1.064	1.074	2.028***	1.300	2.079***
	(0.151)	(0.118)	(0.092)	(0.075)	(0.269)	(0.240)	(0.135)	(0.187)	(0.187)	(0.269)	(0.256)	(0.224)
Centre	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
North-West	1.085	0.982	1.061	1.037	1.467*	1.083	1.053	1.138	1.066	0.851	0.789	0.925
	(0.180)	(0.105)	(0.145)	(0.090)	(0.331)	(0.247)	(0.241)	(0.214)	(0.181)	(0.118)	(0.162)	(0.109)
North-East	1.488**	1.354***	1.098	1.292***	1.772**	1.448*	1.510*	1.557**	1.430**	1.295*	1.040	1.440***
	(0.245)	(0.147)	(0.152)	(0.113)	(0.407)	(0.323)	(0.325)	(0.287)	(0.241)	(0.180)	(0.207)	(0.168)
South	0.817	0.674***	0.667***	0.538***	0.641*	0.704	0.878	0.817	0.644**	0.695**	0.739	0.645***
	(0.139)	(0.074)	(0.087)	(0.045)	(0.170)	(0.170)	(0.190)	(0.152)	(0.118)	(0.100)	(0.138)	(0.075)
Islands	0.870	0.839	0.856	0.754***	0.521	0.718	0.795	0.900	0.347***	0.644**	0.692	0.676**
	(0.209)	(0.129)	(0.146)	(0.082)	(0.211)	(0.243)	(0.243)	(0.224)	(0.110)	(0.130)	(0.180)	(0.106)
White collar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entrep./Manag./Prof.l	0.915	1.215	1.261*	1.207**	0.837	1.062	1.237	1.171	1.048	1.157	1.250	1.246**
	(0.192)	(0.159)	(0.156)	(0.0961)	(0.206)	(0.229)	(0.227)	(0.174)	(0.193)	(0.169)	(0.217)	(0.124)
Self employed	0.647**	0.747***	0.799*	0.812**	0.820	0.832	0.840	0.852	0.661**	0.779	0.704	0.935
	(0.113)	(0.084)	(0.106)	(0.068)	(0.213)	(0.222)	(0.185)	(0.167)	(0.129)	(0.124)	(0.151)	(0.113)
Blue collar	0.652***	0.674***	0.599***	0.630***	0.799	0.638	0.662*	0.504***	0.577***	0.728**	0.727*	0.647***
	(0.102)	(0.070)	(0.077)	(0.050)	(0.193)	(0.178)	(0.145)	(0.112)	(0.108)	(0.110)	(0.140)	(0.079)

Note: coefficients are exponentiated. Standard errors are in parentheses. *, ** and *** denotes significancy at, respectively, 90%, 95% and 99% level.

Some interesting differences characterised concert and theatre (performing arts) with respect to museum attendance, in terms of social influence. In the case of performing arts, spousal education produced the strongest effect in joint attendance. If this happended for both wives and husbands in 1995, it was no longer confirmed for wives' spousal effect in 2000.

Museum attendance showed peculiar gender and social patterns. Here own individual education usually resulted to be a stronger predictor of individual participation rather than in the case of attending together for both men and women. Furthermore, in two cases individual education (respectively, wives' in 1995 and husbands' in 2000) even showed to lower the risk of museum attendance of the reciprocal partner alone, confirming museum attendance to be a more individual activity than the performing arts.

The obtained differences for the types of artistic activity are consistent with their nature, being performing arts live and more participated than the "accomplished" cultural heritage. In addition, performing arts are typically attended in more social parts of the day (usually in the evening), while museums are rather visited during the daytime.

In general, the other individual socio-demographic controls confirmed the initial hypotheses, with some other differences emerging according to the type of artistic activity and, in some cases, its participation modality. For instance, museums attendance (especially individual one) was positively associated with husbands' age, similarly for wives going to theatre alone.

The type of arts activity showed different patterns in attendance in terms of the size of the city of residence. In particular, while museum were especially favoured by habitants of small cities (probably going elsewhere for their cultural consumption), the opposite was true for theatres, attended especially (in and) by residents of metropolitan areas, followed by those of medium size cities. On the other hand, the geographical provenance did not discriminate between types of activities, showing a higher participation by spouses and couples in North-Eastern Italy, followed by the North-West, the Centre, the islands and the South. Of course, the fact of having very young children (up to five years old) confirmed to be a deterrent for any attendance – in particular in joint attendance – in all arts activities, with a clear improvement with children from 6 years old. Finally, professional categories confirmed clear attendance patterns, with blue collars and self-employed considerably lowering the risk of attendance, and the highest professional categories often associated with a similar or higher attendance than white collars.

6 Concluding remarks

By using two nationwide representative samples of about 14,000 italian married couples collected respectively in 1995 and 2000, we have analysed the impact of mutual spousal educational attainment on both individual and joint arts attendance of respective wives and husbands for museums, concerts and theatre. Other controls, of traditionally individual type, included age, occupation, presence and age of children, city size of residence and geographical provenance.

We obtained different patterns depending on the type of artistic activity. Performing arts, that is concerts and theatre confirmed to involve a more socially oriented participation, with spousal educational attainment having an effect on joint attendance stronger than individual attendance and individual education. On the contrary, visiting museums showed clearly individualistic attitudes, since own individual education played the major role. This result was reinfornced by an inverse relationships between somebody' education and his/her respective spouse's visiting alone.

References

Ateca-Amestoy, Victoria (2008), 'Determining heterogeneous behavior for theater attendance', *Journal of Cultural Economics*, 32:127–151.

Bauman K.E., Foshee V.A., Linzer M.A. and G.G.Koch, 1990, "Effect of parental smoking classification on the association between parental and adolescent smoking", *Addictive Behaviors*, 15, 413-422.

Becker, G.S. - Murphy, K.M. (2000), *Social economics: market behavior in a social environment*, Harvard University Press.

Benham, Lee. (1974), "Benefits of Women's Education within Marriage." In *Economics of the Family: Marriage, Children, and Human Capital*, edited by T.

W. Schultz. Chicago: University of Chicago Press (for NBER).
Bernasco, W., De Graaf, P. M., and Ultee, W. C. (1998), "Coupled careers: Effects of spouse's resources on occupational attainment in the Netherlands". *European Sociological Review*, 14, pp. 15–31.
Blossfeld, Hans-Peter and Timm, Andreas (eds) (2003), *Who Marries Whom? Educational Sytems as Marriage Markets in Modern Societies*, Dordrecht, Kluwer Academic Publishers.
Borgonovi, Francesca (2004), 'Performing arts attendance: an economic approach', *Applied Economics*, 36, 1871 – 1885.
Bosma, H., Appels, A., Sturmans, F., Grabauskas, V., and Gostautas, A. (1995). "Educational level of spouses and risk of mortality: The WHO Kaunas–Rotterdam Intervention Study (KRIS)". *International Journal of Epidemiology*, 1, 119–126.
Brock, W.M. - Durlauf, S.N., (2001), "Discrete Choice with Social Interactions", *The Review of Economic Studies*, 68, pp. 235-260.
Case A.C. and L.F. Katz, 1991, The company you keep: the effects of family and neighbourhood on disadvantaged youths. NBER Working Paper n. 3705.
Cavalli-Sforza, L.L. and Feldman, M.W. (1981), *Cultural Transmission and Evolution: a Quantitative Approach*, Princeton University Press, Princeton, N.J.
Cipollone, P. - Rosolia, A. (2003), "Endogenous social interactions in schooling: evidence from an earthquake", mimeo.
Cutler, David M. and Glaeser, Edward L., (2007), "Social Interactions and Smoking". Harvard Institute of Economic Research Discussion Paper No. 2153, March.
De Graaf, N. D., and Heath, A. (1992). "Husbands' and wives' voting behaviour in Britain: Class-dependent mutual influence of spouses". *Acta Sociologica*, 35, pp. 311–322.
Della Valle, A. P. (2002), "The Search vs. Experience Aspects of Cultural Goods: from Mass Media to the Performing Arts", paper presentato alla "12th International Conference on Cultural Economics", Rotterdam, June.
DiMaggio, P. and Useem, M. (1978), "Social class and arts consumption: the origins and consequences of class differences in exposure to the arts in America", *Theory and Society*, 5(2), 141–61.
Evans, William N., Wallace E. Oates, and Robert M. Schwab. 1992. "Measuring Peer Group Effects: A Study of Teenage Behavior." *Journal of Political Economy* 100(5)(October): 966–991.
Farkas A.J., Distefan J.M., Choi W.S. and J.P. Pierce, 1999, "Does parental smoking cessation discourage adolescent smoking?", *Preventive Medicine*, 28(3), 213-218.
Ganzeboom, H. B.G. (1989), "International Comparisons of Culture Consumption Data: An Elementary Model", in: C. R. Waits et al., eds., *Cultural Economics '88: A European Perspective* (Association for Cultural Economics, Akron): 109-116.
Gaviria A. and S. Raphael, 2001, School based peer effects and juvenile behaviour, *Review of Economics and Statistics*, 83(2), 257-268.
Glaeser E.L. and J.A. Scheinkman, 2001, Measuring social interactions, in *Social Economics*, Eds. Durlauf and Young, Cambridge: MIT Press, 83-102.
Glaeser, E. - Scheinkmann, J., (2000), "Non-Market Interactions", NBER Working Paper n° 8053, December .
Glaeser, Edward L., Bruce I. Sacerdote, and Jose A. Scheinkman. 1996. "Crime and Social Interactions." *Quarterly Journal of Economics*, 111(2)(March): 507–548.
Graaf, Nan Dirk de (1991), "Distinction by consumption in Czechoslovakia, Hungary,

and the Netherlands", *European Sociological Review*, vol. 7, No. 3, Dec., p. 267-290.

Grodner, A. (2003), "A partial equilibrium analysis in the markets with social interactions", mimeo, august 2003

Groot, Wim and Massen van den Brink, Henriette (2002), "Age and Education Differences in Marriages and their Effects on Life Satisfaction", *Journal of Happiness Studies*, vol. 3, p. 153-165.

Jackson C., Henriksen L., Dickinson D. and D.W. Levine, 1997, "The early use of alcohol and tobacco: its relation to children's competence and parents' behavior", *American Journal of Public health*, 87, 359-364.

Kalmijn, Matthijs (1991), "Status Homogamy in the United States", *The American Journal of Sociology*, vol. 97, No. 2, Sept., pp. 496-523.

Kapteyn, A. - van de Geer, S. - van de Stadt, H. - Wansbeek, T. (1997), "Interdependent Preferences: an Econometric Analysis", *Journal of Applied Econometrics*, vol. 12, pp. 665-686.

Katz, Lawrence F., Jeffrey Kling, and Jeffrey B. Liebman. 2001. "Moving to Opportunity in Boston: Early Results of a Randomized Mobility Experiment." *Quarterly Journal of Economics*, 116(2)(May): 607–654.

Leibenstein, H., 1950. "Bandwagon, snob and Veblen effects in the theory of consumers' demand", *The Quarterly Journal of Economics*, 64, 183–207.

Lewis, G. B. and Seaman, B. A. (2004), "Sexual orientation and demand for the arts", *Social science quarterly*, vol. 85, n°3, pp. 523-538

Liao, Tim Futing and Stevens, William (1994), "Spouses, Homogamy, and Social Networks", *Social Forces*, Vol. 73, No. 2, Dec., pp. 693-707.

Manski C.F., 1993, "Identification of endogenous social effects: the reflection problem", *Review of Economic Studies*, 60(3), 531-542.

Manski, C.F. (2000), "Economic Analysis of Social Interactions", in *Journal of Economic Perspectives*, vol.14, n.3, Summer, pp. 115-136.

Mare, Robert D. (1991), "Five Decades of Educational Assortative Mating", *American Sociological Review*, Vol. 56, No. 1, Feb., pp. 15-32.

Monden, Christiaan W.S., Frank van Lentheb, Nan Dirk De Graaf, Gerbert Kraaykamp (2003), "Partner's and own education: does who you live with matter for self-assessed health, smoking and excessive alcohol consumption?", *Social Science & Medicine*, 57, pp. 1901–1912

Nelson, P., (1970), "Information and Consumer Behavior", *Journal of Political Economy*, 78, pp. 311-29

Peterson, R.A., P.C. Hull and R. M. Kern (2000), *Age and Arts Participation: 1982-1997*, Research Division Report # 42 (National Endowment for the Arts, Washington, D.C.).

Rockwell, Richard C. (1976), "Historical Trends and Variations in Educational Homogamy", *Journal of Marriage and the Family*, Vol. 38, No. 1, Feb., 1976, pp. 83-95.

Sacerdote, Bruce. 2001. "Peer Effects with Random Assignment: Results for Dartmouth Roommates." *Quarterly Journal of Economics*, 116(2)(May): 681–704

Schwartz, Christine R. and Mare, Robert D. (2005), "Trends in Educational Assortative Marriage from 1940 to 2003", *Demography*, Vol. 42, No. 4, Nov., pp. 621-646.

Smits, Jeroen-Ultee, Wout-Lammers, Jan (1998) "Educational Homogamy in 65 Countries: An Explanation of Differences in Openness Using Country-Level

Explanatory Variables", *American Sociological Review*, Vol. 63, No. 2, Apr., pp. 264-285.

Soetevent, Adriaan R. (2006), "Empirics of the Identification of Social Interactions; An Evaluation of the Approaches and Their Results", *Journal of Economic Surveys*, 20 (2) , 193–228.

Stigler, G.J. - G.S. Becker (1977) "De Gustibus Non Est Disputandum", in *American Economic Review*, 67, pp. 76-90.

Topa, G. (2001), "Social Interactions, Local Spillovers and Unemployment", in *Review of Economic Studies*, 68, pp. 261-295.

Verdaasdonk, H. (2003), "Valuation as rational decision-making: a critique of Bourdieu's analysis of cultural value", *Poetics*, pp. 357–374.