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The Cumulativity of Activities

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THE CUMULATIVITY OF ACTIVITIES

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Abstract

"The sociology of lifestyles is dominated – especially in France – by a theoretical model known as *The Distinction* model (Bourdieu, 1979) that establishes a systematic correspondence between the space of practices and consumptions on the one hand and the space of social positions on the other. This theoretical model particularly thrived with the analysis of the social differentiation of cultural practices.

In this paper, we intend to empirically analyse the structuring of the space of the practices analyzed in the survey on cultural and sports activities among the French population conducted in May 2003 by the INSEE, and to confront our results with the models proposed by Bourdieu or his recent critics. 25 years after *The Distinction,* the survey provides a good occasion to revisit the future of a theoretical model that has been deeply disturbed by the rise of eclecticism in practices and tastes."

Mots-clefs : culture, Bourdieu, omnivore

Summary

1. Aim of the study

The sociology of lifestyles is dominated – especially in France – by a theoretical model known as *The Distinction* model (Bourdieu, 1979) that establishes a systematic correspondence between the space of practices and consumptions on the one hand and the space of social positions on the other. This theoretical model particularly thrived with the analysis of the social differentiation of cultural practices.

In this note, we intend to empirically analyse the structuring of the space of the practices detailed in the survey on cultural and sports practices among the French population conducted in May 2003 by the INSEE, and to confront our results with the models proposed by Bourdieu or his recent critics. 25 years after *The Distinction,* the survey provides a good occasion to revisit the future of a theoretical model that has been deeply disturbed by the rise of eclecticism in practices and tastes.

2. Social stratification and lifestyle. The debates.

If the analysis of the data on surveys about leisure activities and cultural practices is not ignorant of the thematic approaches of "cultural legitimacy" and "symbolic domination", the borrowing of Bourdieu's sociological categories is from now on done in a context marked by a certain number of critiques and suggestions.

Since the early 90s, the theoretical model developed in *The Distinction* has been criticised and amended several times. For some authors, this model based on the data of surveys on the French society of the early 60s would only correspond to a particular period in the History of western societies and more precisely of the French society and would be difficult to transpose in other contexts, notably that of Northern America where the relation to culture, especially to "highbrow" culture, would not play the same role in the mechanisms of social stratification (Lamont, 1993). Besides, Bourdieu's theory was sometimes blamed for under-estimating the autonomy and the segmentation of the value systems and aesthetic standards of popular classes. The relation of popular classes to "highbrow" culture was said not be dominated by a feeling of cultural indignity as strong as *The Distinction*'s author claimed it was (Passeron & Grignon, 1989). More recently, it is the unity of the *habitus* as a principle generating practices that has been questioned by the idea that the plurality of the individual's socialisation arenas breaks up the consistency given by *The Distinction* to the attitudes, tastes and cultural habits of individuals, which are in fact diverse and scattered habits (Lahire, 1998 et 2003). However, two kinds of clearly more radical critiques emerged: the thesis of "omnivorousness" and that of individualisation of lifestyles.

2.1 The thesis of cultural legitimacy and structural homology

The model upheld by Pierre Bourdieu in *The distinction* consists in the observation of a space of lifestyles structured and organised into a hierarchy by associating and opposing practices and tastes. This lifestyle space is itself related to the space of the individuals' social positions through a "structural" homology relationship: specific activities and tastes are associated to the different positions and characterise the individuals occupying them. Tastes are also "distastes", and the social identity of the individual not only depends on the positive adherence to the preferences and habits of his/her environment, but also on the rejection of the preferences and habits s/he attributes to other social groups (Bourdieu, 1979, p. 64-65).

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In a general way, in the cultural field strictly speaking, the familiarity with highbrow arts and the distance towards popular arts and mass culture create an opposition between upper classes and popular ones. However, from a closer point of view, this opposition is refined by the recognition of the nature of the resources available to the different "fractions" of classes: economic capital or cultural capital (i.e. diploma).

The social space described by this homology principle presents itself as a space of "symbolic domination" based on the internalisation in the whole society of an order of cultural legitimacy preferences. School, among others, assures its reproduction by providing an academic legitimacy to the "cultural arbitrary" of dominant classes (Bourdieu & Passeron, 1970). Tastes and practices can thus be organised hierarchically in order of legitimacy. From this point of view, Bourdieu's sociology clearly questions the classical opposition of class and status concepts of the Weberian tradition (Lemel, 2004). While the informal mechanisms of socialisation covered by the notion of *habitus* (Bourdieu, 1980) contribute to the construction of symbolic borders between the social classes endowed with a certain cultural autonomy, the efficacy of distinction laws supposes the existence of a same legitimacy order in all social groups which would more or less look like a rigid order, and which would be similar to the one underlying the ordinary behaviours of ostentatious spending in the order of consumption practices (Veblen, 1899).

2.2. The thesis of omnivorousness

The "omnivore/univore" hypothesis, originally suggested by Di Maggio (1987) and systematised in a seminal article by Richard Peterson and Peter Simkus on the musical tastes of contemporary Americans, supports the idea that the main criterion of social distinction is today rather a matter of cultural diversity than a matter of access to highbrow culture (Peterson and Simkus, 1992). As a matter of fact, since Peterson and Simkus' article, much evidence that the cultural elites tend to be characterised by the scope and variety of their practices and tastes has been collected in the field of Music, in North America as well as in Europe, whereas working classes tend to be rather more univores (Peterson and Kern, 1996; Bryson, 1996 and 1997; Van Eijck, 2001; Coulangeon, 2005). Similar tendencies have been brought up in various other fields such as reading (Van Rees et al., 1999) and performing arts (Lopez Sintas and Garcia Alvarez, 2002; Chan and Goldthorpe, 2005). Despite these empirically well-founded observations, the interpretation of the "omnivore/univore" concept remains quite ambiguous. Basically, two slightly different conceptions can be identified.

The first interpretation highlights a dimension of eclecticism in cultural tastes. Here, omnivorousness refers more to the variety of tastes expressed by the individuals than to the quantity of cultural goods they consume. As stated by Peterson himself, omnivorousness is the shift "*from intellectual snobbism, (…), based on the glorification of arts and the contempt of popular entertainment, (…) to a cultural capital that appears increasingly as a willingness to appreciate the aesthetic of a wide variety of cultural forms, including not only the arts, but also a wide range of folk and popular forms of expression*" (Peterson, 2004). Specific abilities are required to overcome the cultural and aesthetic boundaries between various genres and repertoires within a single domain of cultural consumption. Thus, the issue of omnivorousness can be addressed through the diversity of taste expressed by individuals within a given domain, be it in literature, the visual arts, cinema, etc.

The second interpretation insists on a tendency for accumulation in terms of cultural consumption. The more people consume cultural goods, the more likely they are to become involved in other forms of cultural consumption. In this sense, cultural omnivorousness could be better labeled as cultural voracity (Katz-Gerro and Sullivan, 2005).

2.3 The thesis of individualization of lifestyles

The most radical contestation of Bourdieu's theoretical model came in the early 1980's from the "post-modernity" thesis holders. In a post-modern society, inequalities and distinctions would not disappear but would be fundamentally uncertain. Lifestyles would define modes of differentiation and identification mainly chosen by the individuals, independently from their status, class, gender, age or ethnicity, and would be assigned to them by none of the groups to which they belong (Featherstone, 1991).

Lifestyles would constantly redefine themselves and gather the individuals contingently according to circumstances and stakes; which constitutes one of the facets of the "risk society" (Beck, 1992). Post-modernity theories consider lifestyles as realities in a class of their own, as elements of a continuous process of one's auto-definition (Harvey, 1989), and as a reflection of the diversity of the available cultural messages (Slater, 1997) that acquire for themselves a power of identification of the individuals, independently from criteria of class, wealth or cultural capital (Giddens, 1991).

3. Field of study and indicators of practices

3.1 Field of study

The survey on cultural and sports practices deals with persons aged over 15 and living in ordinary households: this would a priori constitute the field of the present study.

However, keeping this age group raises some difficulties of at least two types.

First, a great part of this population has no direct personal links with work (around 10% of the population, but with a much higher rate among the youngest people). Yet, many tools used to plot the individuals 'social position – such as socio-economic categories, social status, etc – are actually based on the practice of an occupation. This consequently raises the question on how to deal with the persons who do not practice or who have not practiced any occupation, which, in turn, brings up another fundamental question of social theory: what is the social position in such a case?

The second difficulty – closely linked with the first – concerns students and pupils. Do they exist in conditions so fundamentally different from others who have already "settled in their existence" that they should be isolated and analysed separately? And if we proceed in this way, wouldn't we have to select only those who gave up school early? Then, should we only take into account people much older than 15?

Over time, we will a priori deal with the whole population aged over 15 but we shall endeavour to analyse various possible options in order to handle previous problems and take out their consequences in terms of statistical findings.

3.2 Activities studied. The two possible scopes of analysis.

We shall study a set of 44 activities, representative of all the domains studied in the survey. The latter examines the listening and viewing of the media (television, radio, newspapers and magazines), reading, music listening, "cultural" outings (cinema, theatre, concert, etc) and sports activities (hiking, snow sports, team sports, hunting, etc). the details asked can be more or less great (for instance, no detail is asked about the type of fishing practiced – athletic, sea or pond fishing, etc – ; in the same way, the titles of theatre plays, the TV channels or the types of TV shows are not asked either. We made a selection, trying to cover the various scopes examined in the survey and also taking into account the various items that relatively

rarely appear: it serves no purpose to retain /there is no point/ it is no use retaining such detail that seems very interesting a priori when asked about an activity if the number of persons concerned is so limited that the analysis is impossible to carry out. We can only exclude the fact that the conclusions we will draw out are partly artefacts of our choosing. In view of their nature, it seems quite improbable to be so. The list of activities studied, along with the precise definition of the indicators used, is given in Annex 1. More fundamentally, the study we will carry out here will mainly deal with what we could call the register of "products" and will much less consider what we could call the register of "brands". In consumption, this distinction is obvious. There is the product level – e.g. refrigerators or detergents – and the brand level – Brandt or Liebert, Omo or Vizir. Such a distinction is almost absent from the field of studies on cultural practices, especially those on leisure. Yet, to us, it seems equally structuring.

Economists long ago introduced the functions of utility and separable utility in their technical arsenal, and marketers and advertising executives know well that they will have to struggle in order to impose their brand to the detriment of others, without even hoping to be able to considerably increase the market shares of their product. They all consider that behaviour determinants do not have the same nature at both levels of analysis. Of course, the distinction must be made more complex through the differentiation of a larger number of levels, especially because one of the brand strategies consists in cutting out a monopolistic segment in the market by trying to convince the consumers that brands are effectively products, but, even simplified, the distinction remains most fundamental.

In the music field, for instance, we shall analyse an indicator of "music listening" on the same level as other indicators like "visiting a museum" or "reading a daily sports newspaper". The values of the indicators will be compared. Meanwhile, we could also – which we will not do here but in another study – analyse the various music genres listened to by music listeners. These two types of analyses correspond quite exactly to what is done through functions of utility and separable utility in the case of consumption. First, we shall examine the links between large categories of activities and consumption – judged incommensurable from one another –, and then we will examine the links between more primary activities and consumption which can be both considered as a particular declension of a general category: listening to hard rock music or classical music are two different forms of "music listening" but none can be considered as a form of reading.

Besides, that mode of analysis that consists in nesting and this vision of "music listening" precisely correspond to the logic of the questionnaire insofar as they fit well in its whole content and quite precisely describe a certain reality in the way people are represented.

Conceptually, the notion of "separability" is supposed to describe a decision process in two stages: first the distribution in large masses (budget supplies in the case of consumption) and then the large fixed mass (decision on more basic choices). Underlying this, there is a distribution of a rare resource for economists: money, to which we should also and especially here add time. A major point in this approach is that the principles of choice will not inevitably be similar from a stage to another. Sociology of lifestyles tends to mask the distinction and infer too hastily from one level to the other, and even confuse them.

In this study, we will remain at the level of "products" and not try to examine that of "brands". The findings we will give will thus be at the "product" level, and it has not been established straightway that our findings could be transposed to the "brand" level.

4. The organisation of activities: cumulativity, sports universe and readings

The first and most striking aspect around which this text is organised is that, besides a few exceptions, the 44 activities studied do not alternate with one another: their practice is

cumulative. In other words, the probability to practice one activity is larger if one already practices another. Over time we will illustrate the importance of this cumulative process of activities.

From a statistical point of view, the first component of a principal component analysis (PCA) of all the scales of intensity of practice on the whole population explains 13% of the variance. The following factors explain at best around 5% of it. We may seriously wonder if the first factor is not sufficient to explain by itself the structuring of the practices we are going to examine here. It is by all means certainly essential, and its characteristics justify that we talk about "cumulativity" of activities.

Graph 1 here

4.1 The accumulation of activities

This first component of the PCA is positively correlated to each practice variable, except in 2 or 3 cases. It constitutes what is called a "size factor".

The existence of a "size factor" means that the correlations between the indicators taken two by two are generally positive; though they can possibly be weak, they are positive. This is precisely what the idea of "cumulativity" is: whatever the pair of activities considered, one is more likely to practice one activity because one already practices the other.

Table 1 here

We can imagine at least two ways of interpreting such a statistical result. We can first suppose that the positive correlations translate direct causalities between practice variables: practice more of the A activity would entail practicing more of the B activity, and this, for logical reasons (material or psychological). This case is obvious when it comes to what are called joint activities that cannot be practiced without another being practiced too: one cannot "go to the cinema" without "going out". In that present case and due to the large number and diversity of the activities studied here, such explanations do not seem to be uniformly applicable.

The other explanations refer to the existence of causality factors that would play similarly on each activity. The correlations between practices would then be positive simply because they all depend on the same factors in the same way. These factors could be the persons' social or demographic characteristics, of which the consequences would be alike whatever the activity. The "size" effect would thus be partly an artefact of construction. It could also be a latent artefact of some other nature – to be précised – but that would not directly refer to socio-demographic characteristics and the first component of the PCA would in fact be a translation of that latent factor.

► *The fractal nature of cumulativity*

We can think for instance of age as a common factor of causality. Here, a large part of the activities studied require physical ability, which of course decreases with age. They often require going out, disturbing the well-known tendency of the elderly to stay home. But this possible reduction of activities due to older age does not explain the result. The "size effect" remains unchanged when the analysis is limited only to the elderly (over sixty years of age), the young (under 30 years of age) or the middle aged people[1]. We can see that by comparing

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[1] The reasons for this distribution according to age rather than other classes will appear further.

the results of the PCA or the FCA carried out separately for these three sub-populations and we can give a spectacular illustration by calculating the correlations between the extrapolations to the whole sample of results: they are of 0.99 for the first component of a PCA[2]. The composition and the importance of the first component are independent from the age category under consideration.

The same result can be observed if instead of age, we examine the persons' education level: the extrapolations to the whole sample of components calculated only on the basis of the least or the most educated persons are almost imperceptible: the correlations are again of 0.99.

The first dimension of the practice field is obviously of a fractal nature. The size effect is no artefact. It probably translates the existence of a latent factor that can be associated to the first dimension of the PCA.

► *Which activities cumulate?*

Of course, all the activity scales do not equally contribute to define the first component. Sports practices do not contribute much to its definition (even if they are also positively correlated to it). Visiting an art exhibition, a museum, or a historical monument, reading books, going out to the cinema are the variables that contribute more than others to define the first component. This set of activities – that consequently constitutes the first dimension – indisputably presents a "cultural" connotation.

However, we cannot easily isolate "the" cultural or sports practices that would define the axis. The loadings regularly decrease without our observing of a well-defined threshold. In fact, the 44-variable set enables to constitute an excellent Likert scale by simple summation (the Cronbach alpha going beyond 0.8), which confirms an interpretation in terms of accumulation. More broadly, the quality of the Likert scales – that we can construct by summing up elementary scales – is very high, regardless of the variables used to constitute them (as long as they are numerous enough). It is clearly not only the variables most correlated to the first factor that define it, but also their totality or their near-totality, while nothing of the kind is observed for the second or third dimension.

Graph 2 here

Three activities defy this accumulation logic: fishing, hunting, and most of all, TV viewing.

The practices of fishing and hunting appear to be quite "neutral" and very slightly sensitive to what the individual can do besides. Meaningfully, the average of the absolute values of their correlations with the other variables of practice is among the weakest observed (after radio listening, at the same level as ball games and…mountain-related activities).

TV viewing is however clearly in the opposite logic, that of reciprocal exclusion: the more TV one watches, the less likely one is to do other activities, while the more activities one does, the less TV one watches. Nevertheless we should not deduce that there is total antinomy since it is rare to meet people who do not watch TV at all, even when they do many activities (see Annex 2 for details on the subject). In any case, the level of TV viewing decreases with the first component.

As for the other activities, the intensity of their practice regularly increases – or at least does not diminish – with that first component. This is obviously because the first component reflects its construction mode and renders a "size effect". An interesting – but not systematic

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[2] These correlations are also very high for the second component. They are lower for the third one. Its content is therefore more dependent on the age of the persons.

– point is that the respective levels of practice of these activities always follow the same hierarchy, whatever the "size effect" value, so that we can organise them into a pseudo-Guttman scale (see Graph 3). It would then be as if, on average, the more "active" individuals practiced a given activity at least as much as the less active ones do not practice it, and as if new and well-defined activities were added at each "activism" level. Of course, this is a result "in order of size" and in average that cannot be transposed as such at the individual level, which would obviously be necessary to be able to mention real Guttman scale. This result must be considered as a heurism.

Graph 3 here

Overall, Graph 4 directly illustrates the result in the sports field and Graph 5 illustrates it in a more synthetic way for all activities: the likelihood of practicing a given activity will increase as the number of activities practiced increases, the likelihood being here assimilated to the average value of the scales of practice.

Graph 4&5 here

4.2 Two complementary dimensions

In order to account for the results of an overall PCA, Kayser's criterion would suggest keeping about fifteen components whereas the elbow criterion would keep its three first components, with a clear predominance for the very first one (see Figure 1).

The first component of the factor analyses is clearly different from the next ones because of its importance, its "size effect" and its fractal nature that make its content independent from the sub-population on which its nature is examined. The next components do not have those characteristics. Even though the second still offers an important fractal character, that is not the case of the third, more sensitive to the particular population to which we would limit the analysis. Neither of them are size factors. They both have a weak explanatory capacity. Moreover, it is impossible to associate them with Likert scales of satisfactory quality. However, we could associate to them what we can call typical constellations of collectively practiced activities, the appellation "lifestyle" being probably too strong because of the weak structuration degree that is associated to those two components.

The second component refers to sports, initially under the particular category of "passive sports": newspapers reading and attending of sports shows particularly contribute to this axis. Associated to them are collective sports (football, rugby and hand-ball) and then other sports activities with the noteworthy exception of "hiking" and "gymnastic-yoga", the practice of which is opposed to the practice of all the other sports. This "sports" practice is opposed to a "cultural" activity defined through visits of museum or art exhibition and night outs to the theatre or the opera/operetta. However, all these activities are not as relevant to create this second component as the "passive sports" are.

The exact meaning of the third component is less easy to define. It is unassumingly explanatory. The practices that contribute to define it change from a sub-population to another. In general, it highlights the reading of regional daily newspapers first, then of newspapers and magazines. On the other hand, it underlines "music listening", "going out to the cinema" and certain sports (but not hunting and fishing). Suite significantly, this third dimension is averagely very high among farmers, and its average value clearly decreases with age and the urbanisation level. We can figure that it enables to oppose two lifestyles: one that is home centred and corresponds to a rural and provincial elderly population, and one that is

more extrovert and corresponds to a young and very urban population. Please note that this is only a secondary aspect in the structuring of the fields of practice studied here.

5. What do volume and nature of the undertaken activities depend on?

We will focus on the first dimension of the field of practices that corresponds to the first component of the PCAs of all the indicators. In view of what precedes, we can either use this first component, or consider the Likert scale obtained by the addition of the elementary indicators as "activity volume" indicators. Considering this, we will then use the Likert scale obtained by summing up all the variables listed in Table 2 down to and including "jogging". We will call that scale the "volume scale".

The denomination "volume scale" may arouse discussion for its construction (as well as the construction of the components of the PCA) can be analysed by referring to two elements. Two individuals can obtain the same quoted value on the scale by declaring a few activities in a limited number for one element, but for each of the values, apply many practice episodes over the year, and for the other element, apply many different activities with few practice episodes for each value. Same values of the volume scale can thus be obtained with various structures of "eclecticism" (number of activities undertaken) and intensity (number of practice episodes). However, the notion of volume subsumes both elements, which confirms our denomination. An indicator more oriented towards diversity and eclecticism would be the number of activities undertaken over a reference period, i.e. the number of 44 activities of which at least one episode was declared. That indicator is highly correlated too with the Likert scales and the first component of the PCA (corr=0.89).

Therefore, the conclusions are very similar whatever the indicator retained: see Annex 5. It is however advisable to keep in mind in what will follow that the word "volume" has to be understood in reference first to the most of questioning of the survey then to the mode of construction of the elementary scales from the answers. Be that as it may, we will examine how this "volume of activities" varies according to the social and demographic characteristics of the respondents. The perspective will be more descriptive than explanatory – if by "explanatory" we imply "causality" in its strongest sense. Few variables, the effects of which we are going to study, are easy to handle in the conditions that would require the real demonstration of causality. The first aim will be to strongly establish the differences in behaviour observed among people of different age, sex, and social background. This will of course not keep us from thinking of the possible reasons for the differences observed[3].

The social and demographic characteristics, the interactions of which we shall systematically examine, are the following:
- Age and sex
- Social position plotted through the following dimensions: education level, standard of living of the home, level of social status, socio-economic position;
- Urbanisation level in the place of residence.

The technical descriptions are given in Annex 3. The detailed results of the regressions are given in Annex 4.

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[3] We are totally in line with Berck's approach (2004). After all, as Berck stated it in 2004, "*In summary, good description is the bread and butter of good science and good policy research. Regression analyses can play a very important role in this enterprise. They should not be dismissed as "mere" description.*" As he himself recommends, we will use the regression techniques but we will not limit ourselves to them.

5.1 The lessons from an assessment. Age and social hierarchies.

In view of the results in Annex 4, it appears that the "volume" of undertaken activities is firstly linked to the position a person occupies in the socio-cultural hierarchy: socio-economic position, education level, social status and to a lesser extent, the level of resources. Some differences can also be associated with age; they are emphasised if we consider the "number of activities" indicator (see Annex 5) but they are certainly of a smaller scope. There is no difference between men and women.

Substantially the value of the indicators decreases with age and increases with social positioning. However these social and demographic characteristics are linked to each other. We are aware of the general advance in the access to education – notably to postgraduate education – in the past thirty years. The differences between age groups are therefore a priori significant regarding the education level. Knowing that important behaviour differences are related to the education level, we can ask ourselves about the real nature of the disparities between people of different ages. In the same way, the elements of status are quite congruent, and the interactions that could exist between the various components of social position are strong. Therefore, we must also ask ourselves about how are organised the behaviour differences that can be associated with them. This is precisely what we are going to deal with below.

5.2 The two extremities of the life cycle. The real effects of age.

It seems that the "volume" of activities regularly decreases with age and we notice that the decrease tends to speed up the after the age of 65 (see Graph 6).

Graph 6 here

However, the regularity of this decrease is totally misleading. In reality, there are three different age groups: an intermediate group from 30/35 to 60/65 years old and two extremes, one made up of the youngest and another composed of the oldest. The ageing consequences are not the same for all three groups. The phenomenon seems really obvious in Graph 6 presenting the variation according to the residuals' age of a regression of the diploma level on the activity volume.

In fact, the differences that we thought we observed with the age progression between 30 and 60 firstly reflect the fact that the successive generations differ because of their education level. Indeed for this age group, the residuals are non-existent. The observed average values of the activity volume are exactly the ones we would observe if only the education level mattered. The results are totally different at both extremities of the life cycle. In both cases the residuals are not null, and moreover their value clearly depends on the age of the respondents. Because of these observations, a systematic distinction is introduced in the models depending on which of these three age groups they belong to. The models are presented in Annex 4. We clearly observe that the coefficient of an "age" variable introduced in addition to the education level in regressions on the "volume" scale is not significantly different from zero in the intermediate age group, but it is significantly negative for the two other age categories: the younger one is, the more likely one is to practice an activity, and the older one is, the less likely one is to practice any activity. In both cases, coefficients of the age variable are significantly negative, which confirms the diagnosis that can be done by examining the

residuals only[4]. Having said that, the phenomena are probably a little more complex than that. There seems to be a specific effect of the end of an occupation. Indeed, considering a given diploma level, we notice an increase in the value of the "volume scale" around 55/60 years old and then the decrease we have just described (see Graph 7).

Graph 7 here

However that may be, the nature of the progressive restrictions of elderly activities reads very well on Figure 3. These elderly persons are on average plotted on the two first levels of the Guttman scale constructed above. Therefore radio listening, TV viewing and reading (regional) daily newspaper are (on average) the only activities of the elderly. Among those a little younger, these activities are completed with a larger variety of reading (books and magazines) and also with music listening. As for the youngest, the structure of that same scale suggests that their progressive restrictions first concern the practice of sports.

We must now draw a conclusion of what we have dealt with above. Any limitation of the analysis to the active population only – i.e. the intermediate period of the life cycle – probably leads to overestimate the importance of the behavioural differences associated with the differences in education level, and more largely with the differences in socio-cultural position. Of course, this importance is not overestimated when the diagnostic is limited to the active population itself but it is, if we extend the analysis to the whole population insofar as we excluded the persons for whom the differences in age precisely disturb the effects of the education level. It is important to take into account the differences between large age groups.

5.3 The role of social position

Generally, the individuals practice more activities if they hold a good rank in the social hierarchy and consequently have more economic and cultural resources. Moreover, each resource has a positive effect of its own, which does not depend on the effect of other resources (see the detailed results in the Annex). However, they do not all have the same significance. We shall first observe the most important one: the education level.

► *The utmost importance of the education level*

The education level is absolutely essential to anticipate someone's "volume of activities"[5]. The R^2 of a simple and direct regression in this level on the "activity volume" scale is 0.37, which is quite significant for an individual data analysis.

The "activity volume" increases with the education level rather systematically for all the persons, in such a way that we can very well plot the ranges of the indicator value that characterise various levels of education. For instance, we can consider that someone whose activity volume indicator does not reach a value of 10 has probably not done postgraduate studies. Even though the "volume of activities" increases with the education level, it also depends on the field of study undertaken (vocational or general): the "volume of activities", at a given level, is lower for the people coming from vocational tracks than for those coming from general ones – at least from secondary school.

Graph 8 here

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[4] The findings are less categorical with the regressions adding other control variables upon the diploma level, but in any case, the coefficients associated to age are very clearly different according to the age group considered. They are relevant at both extremities and are very low or null in the intermediary age group.

[5] See Annex 3.

We often use the word "devaluation" about diplomas. We will avoid using it here. The word might be understood differently depending on whether we compare very remote generations or not, or according to the definition we give to the "value" of a diploma, etc. In the present case, the exact meaning of "devaluation" in terms of a diminution of the activity volume is not that obvious. Nevertheless, we may wonder if a given level of diploma goes with an activity volume that changes with time. If we limit ourselves to the intermediate age classes (30 to 60) in which aging does not seem to be correlative of change in the behaviour, as it is at both extremities of the life cycle (see above), i.e. for people who studied between the 50s and the 90s, we do not indeed observe any variation in the average activity volume according to age, at a given education level (see Graph 7). In a systematic way, the age coefficients in the covariance analysis with the diploma level insignificantly differ from zero; except in case of total absence of diploma on which age has a negative effect – the elderly without diploma have fewer activities than the younger – and in case of vocational diplomas equal to a university first cycle, where there would be indeed a "negative" change and the older would practice more than the younger.

► *Consistency and inconsistency of status.*

If the education level is so important an element to anticipate the "volume of activities", it is even more essential, than it was when dealing with age, to know whether the other components of the social position have their own impact, beyond what their correlation with the education level implies. Indeed, each component has its own effect, even though the "net" effects are obviously much weaker than the visible ones.

Graph 9 here

The "activity volume" increases with the education level. Given an education level, it evolves with the standard of living, as well as with the social status (status meaning the scale constructed for that matter). There is still to define the interplay between these different effects.

When analysing this interplay, we obviously think first of the way it is dealt with by P. Bourdieu in *the Distinction*. The effects of social position are defined through two elements: the general position (the "global capital") and the relative part of economic and cultural assets (the "composition of the capital"). This model appears, in this individual case, of quite good quality.

In order to evaluate that, we have constructed two scales: one of global capital and another of economic or cultural orientation of that capital by inspiration from the results of a PCA of the three following variables: education level, social status scale, and standard of living scale (Lemel, 2006). It turns out that the first component of that PCA is equally correlated to the three variables and explains 65% of the variance whereas the second explains a little more than 20% and expresses an opposition between the economic level on the one hand and the levels of education and social status on the other. We can clearly find again the global capital and its composition (and secondarily that the "social status" as it is defined here rather refers to the dimension of "cultural capital" in the Bourdieusian meaning than to the dimension of economic capital).

The regression of these two scales on activity volume is indeed comparable to the most detailed models given in Annex; the R2 is 0.42 whereas the number of degrees of freedom is much weaker – there are only two parameters in this model of the type "inconsistency of

status". According to this regression, 1 point of global capital raises the activity volume by 2 points whereas 1 additional point of economic capital taken from the cultural capital (with fixed global capital) lowers the activity volume by 1/2 point. These results do not coincide well with what we would have imagined in view of the idea of a homology between social space and lifestyle space. Indeed if the cumulativity of activities is the principle that organises lifestyles, we would expect the dimension of global capital – first dimension of the social capital – to be associated to it at first. Yet, this dimension of global capital does not correspond to the main growth gradient of the activity volume, even though this activity volume surely grows with it. Of course, our operationalisation of the social space dimensions may not be satisfactory and besides, *the Distinction* does not take interest in a global activity volume but in constellations of activities. This being said, the discrepancy seems even so surprising and requires reflection. We will come back to it later, after trying to plot lifestyles in a more systematic and precise way.

Be that as it may, this way of synthesising the results might let slip some effects that are not so simple. It seems we can find more complex interactive effects through a recursive partitioning of the volume scale using the social position variables. For the most and least graduated people, the differences that can be associated to the ones of standard of living seem of utmost importance whereas status differences appear to be more important for the averagely graduated people. This result would deserve to be validated after deeper analyses. In any case, if it turns out correct, it is very meaningful. The activities studied here need several types of resources to be carried through: first and foremost, cultural resources on which attention was indeed focused and of which the education level as well as the social status level are probably the avatars, but also economic resources that should not be forgotten and of which the significant results can be seen in Annex 4. The – non-negligible – importance of economic resources is equal to the one of the social status. What is suggested by the results of this partitioning is that focusing on one resource, rather than another, amounts to favouring the most or the least active people.

Graph 10 here

► *Belonging to a socio-economic category. The peculiar case of artistic occupations.*

In many respects, belonging to a socio-economic category may have effects on the "volume of activities". These effects show directly through the scale of social status because its values are calculated from this membership. However the construction of this scale amounts to building a single hierarchy of the categories to which the people belong. Moreover, the hierarchy is metrical since the gaps between the values of the scale are supposed to reflect the scope of the hierarchical gaps between the categories. Thus, it may so happen that the consequences of belonging to such and such category might not be traced again if we proceed in this way.

In fact, it is not the case here, except for socio-economic category 35 (CS35)*"Media and Entertainment".* Indeed, the activity volume of this category is much larger than the models foreseen in Annex 4. For all others, the differences between predictions and achievements are incommensurable with what we notice with CS35. The point appears very clearly on Graph 11: CS35 clearly shows as an outlier.

Graph 11 here

Overall, the activity volumes observed for a given socio-economic category thus seem to reflect what the levels of education, social status and wealth enable to anticipate. There is no

effect that would be directly linked to the membership of a particular category, except for what would imply the social "rank" we can associate to it. One single exception: CS35. How could we explain that result?

The number of observations is indeed limited and only 33 persons in the sample do belong to this socio-economic category. Thus it might happen that the presence of very few but very active individuals among them is enough to induce the result. Yet again, it is not the case here: only 6 out of the 33 observations do have a volume of activities inferior to what was predicted by the models, and the difference with the prediction is small. It is indeed a specificity that can only be observed individually. An explanation through a review of various incongruous cases is not sufficient.

CS35 gathers various categories of artists – musicians, drama artists, variety artists, etc – as well as journalists, writers and screenplay writers; various occupations in the book industry; technical, artistic and executive managers in the press, the publishing business and the entertainment industries. What distinguishes their practice from other executives' appears on Graph 12: on a general basis, they practice more activities related to outing or visits and they tend to read more. Thus, excluding the visit of historical monuments, their rate of attendance at cinemas, artistic exhibitions, museums or circuses is higher. Their reading of books or comics and their attendance at libraries are larger though their reading of magazine may seem a little poorer. As for sports activities, their practice is quite similar, even though they do not, unlike other executives, read sports newspapers and magazines at all. We are tempted to bring these results together with the type of occupations these persons practice: they are precisely the ones who create and take part in the products and productions essential to the cultural activities that correspond to their occupation, and it really seems to be the only socio-economic category that can be associated to leisure activities on an occupational level. We can imagine in this particular case that their occupational interests keep on to their cultural interests…Further analysis – and verification– of this idea would demand an analysis of the links between cultural activities and occupations at a more detailed level, which is not possible here.

Graph 12 here

5.4 Rural and urban specificities

A priori, the level of urbanisation[6] in the place of residence should have an impact on the activities performed. The scope and nature of the facilities available – much probably linked to the level of urbanisation – undoubtedly have an impact on the leisure activities of the people: no matter how much you want to see a film, if there is no cinema at a reasonable distance, you will not go. We can also imagine that the tastes and sub-cultures due to the membership in a particular socio-economic category will be different depending on whether the people live in a city or in the countryside. In sum, supply and demand may both depend on the level of urbanisation.

Therefore, we notice that the latter does have an impact on the activity volume indicator. Even if this impact is not as significant as the one related to age, it is quite relevant. The "volume" indicator increases with the urbanisation level, and generally, the higher the urbanisation level in the place of residence, the more the practice of activities. The first column of Table 2 shows that the growth accompanying the urbanisation level occurs for almost all activities if taken separately. So it is not surprising that we notice the same for the size effect highlighted above and explained by the volume scale. Several activities do escape

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[6]See Annex 3.

the rule of growth – fishing, hunting, reading of regional daily newspapers and most of all, TV viewing – but they are very few.

There is also a positive correlation between the levels of education or wealth and that of urbanisation so much so that a question arises here, in the same way as when dealing with age, on whether these contextual effects are really significant. In this respect, the second column of Table 2 indicates that a growth, even though weaker, does exist, but that the panorama at the level of basic activities is different.

Concerning many activities of which the practice increased with the urbanisation level – positive direct correlation – the net effect of the latter – corrected because on average the more urban an environment is, the more cultural and economic advantages are available for its inhabitants – is in fact *negative* since the partial correlations that correspond to it are negative. Fishing and watching TV no longer appear as exceptions and certainly not as activities of which the practice would be inhibited by an urban environment. Attendance at sports events, cycling and hiking are much more subdued to it. Hunting remains inhibited by the urbanisation of the environment and most of all, the reading of regional daily newspapers seems strikingly sensitive to it.

On the other hand, several outing activities like going to the cinema, theatre, opera, or operetta, and to a lesser extent, variety shows, and activities involving visits to artistic exhibitions and museums are definitely even more numerous when the place of residence is urbanised. We can assume that in these cases a growing supply accompanied by urbanisation leads to that result[7]. However, even though the practice of other categories of activities, like the reading of non-sport newspapers and cultural magazines, seems to rise with the urbanisation level, an explanation by a growth in the supply is not relevant here. It is interesting to bring the reading of national daily newspapers together with that of regional daily newspapers because their different sensitivity towards urbanisation suggests that their interests are linked to the more or less urban character of their place of residence. Similar results can be observed in terms of identification to geographic areas.

Overall, the partial correlation between the indicator of the activity volume and that of urbanisation level implies that the positive effects altogether prevail over the negative aspects. A propensity to take on cultural or sports activities seems indeed to correspond with the growth in the degree of urbanisation in the place of residence, beyond what would imply the persons' exclusive availability of economic and cultural resources. Nevertheless, reducing these effects to a mere growth in the volume of activities with the urbanisation level would obscure a quite fundamental point, i.e. the fracture underlined by the Parisian specificity in this growth. Thus, if we take "living in a rural area" as a reference, the ("net") effect on the activity volume indicator in a place of residence inside the city of Paris is six times as large as compared to three times in a large agglomeration[8].

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[7] The practice of bodybuilding may be one of these cases.
[8] Please note that Paris agglomeration (apart from the city of Paris), appears in this regard as comparable to medium-size agglomerations.

6. In search of lifestyles

There is no canonical definition of the "lifestyle" notion. As one can see, it can simultaneously refer to ideas on social positioning, constellations of typical practices and people's degree of commitment. However, the large content and the instability of these three elements vary a lot and are covered by a large range of approaches. For instance, for purely descriptive usage, the notion of "peasant lifestyle" probably implies no particular idea on the commitment of so-called peasants in their lifestyle. On the other hand, in the post-modern perspective, everyone builds their own lifestyle as both an interpretation of the orientations of their personal life and a wish to claim the place they intend to reach in society. In this section, the approach will be quite empirical and pragmatic. What matters is to know if all the indicators of practice enable to construct constellations that would be typical enough of the practices, and if they do, how theses constellations would associate with the social or demographic characteristics that can be well identified? We will not deal much with the "commitment" component.

6.1 How many lifestyles?

In order to identify lifestyles, we'll have to bring together individuals who would appear to have similar habits. From a strictly technical point of view, we'll have to apply the methods of cluster analysis that were precisely conceived to gather observations, here the individuals sharing similar values on some numerical variables and there the 44 scales. However, several aspects make this application difficult and it is important to make sure the results are not artefacts and really render the strength of the structures.

First, there are various techniques available and the results may be sensitive to the particular one we choose to use. It is therefore necessary to make sure the results are independent from the techniques. Moreover, the latters are not limited at all as regards the number of groupings they constitute. Besides they tend to consider this number as a parameter rather than as a result. Finally, it is necessary to define the nature of the statistical "noise" and the way it will be treated: what will we consider as a nonsensical observation, an outlier? Which variables do we analyse between the syntheses that constitute the factorial axis on the one hand and the detailed basic answers on the other? These are the points we shall deal with below.

The solutions with 3, 4, 5 and 6 groups obtained with the K-Means method are quite stable. Each implementation – with a new toss of the initial observations – reconstitutes exactly the same groups. These groups are almost the same no matter if we proceed by describing the observations through the 44 values of the detailed practice indicators or through the 3 synthetic indicators built up by the main components described above. The conclusions seem to be quite independent from the precise techniques used and from the more or less detailed description of the activities.

If we number the three clusters of the three-group solution as 1, 2 and 3 by respecting an order that will be defined later –we will further retain the solutions with the K-Means method obtained by synthetic indicators – we notice that the four-group solution is obtained by breaking up group 1 into two subgroups; the five-group solution by breaking up group 2 into two subgroups in addition to the previous division; and the six-group solution by finally breaking up group 3 into two subsets. Thus, these more or less detailed solutions are stacked into each other, which is here a result and not a starting point as it would be the case if for instance we had implemented hierarchical techniques of cluster analysis. However, the stacking is not absolutely perfect: around 85% of the observations belong to the part of the clusters that is totally stacked, the percentage reaching 95% for the observations listed in

group 1 in the three-group solution and only 75% for the observations that were initially listed in one of the two other groups. Nevertheless, we might be able to consider that there is a structuring in the practice area strong enough to allow its identification independently from statistical methodologies. A three-group solution is an acceptable summary and seems particularly dominant in the practice universe enclosed by group 1. This three-group solution is presented in graph 11, in the factor map 1-2 of the overall PCA.

Graph 14 here

The three groups had actually been numbered in the order of the average values taken by the first PCA component, i.e. by increasing "volume of activities". It is in this order that the 3 groups are placed on the first axis of graph 11. Group 1 and group 3 are mainly defined by their position in reference to this axis that corresponds to the first PCA component. Group 2 gathers individuals whose values for this first component are medium values but – and that is what most characterises this group – whose values for the second component are high.

6.2 Can we really use the word "lifestyles" to describe the results?

Which activities do the people gathered in the three groups practice? How do their activities enable to identify and oppose these groups?

Graph 15 presents the average practices in each cluster for each elementary activity. The average practices are organised very regularly into a hierarchy from one cluster to another. The results are exactly the ones we could anticipate given the relative positions of the groups in plane 1-2 of the PCA

Graph 15 here

More precisely, whatever the activity considered, the indicator of practice is averagely weaker in group 1 than in group 2 and group 3, except for TV viewing which the average practice level is a little higher in group 1 than in the two other groups. The practice levels are generally higher in group 3 than in group 2 but there are exceptions. The difference between group 2 and group 3 is mainly encountered in the sport and non-sport activities: the indicators are higher in group 2 for almost all the sports activities (but not all), especially for the "passive" sport activities such as reading daily sports newspapers, and for music listening, going out to the cinema and reading regional daily newspapers. For all the other activities the indicators are higher in group 1.I

It would be tempting to describe group 1 as "homebodies" or "TV-addicts", group 2 as "athletic" and group 3 as "cultured".

However, it would seem restrictive to wish to associate the clusters that we've just created too closely to the exclusive practice – or the absence of practice – of certain activities. The previous results are not average results only. They do show that one is more likely to do an activity in one cluster than in another. They do not intrinsically prove that such and such an activity is specific to such and such a cluster and characterise it indisputably.

If for instance we retain the activities that appear through the segmentation analyses as the ones that most predict the belonging to cluster 1, the scale that we can create by adding up the three or four first scales (theatre, museum, artistic exhibition…) moderately predicts the belonging to that cluster: only extreme values of that scale would guarantee that the individual does – or not – belong to that cluster, and only a few members of the cluster are plotted this way. Furthermore, if the most predictive of these activities are undeniably much more practiced on average by the persons listed in that cluster, we notice the same phenomenon for

all practices: describing that cluster by the sole practice of activities which undeniably hold a "cultural" character in the ordinary sense of the word would mean obscuring that fact.

Graph 16 here

In the same way, an exercise based on "passive" sport activities that are particularly practiced in cluster 2 shows similar results. The null value of a scale of "passive sport practice" confirms that the respondents do not belong to that cluster but it does not allow to precise to which of the two others they do belong. In the intermediate values, we find members of three clusters.

The results are exactly the same whatever the cluster considered.[9] In sum, a null practice dismisses the membership to the cluster while a very strong practice takes it up, but a gap exists between these two extremes. Of course, this kind of result about individual data, is quite compatible with a very structured organisation valid in average like the one in figure 3.

Despite many attempts, we did not manage to determine groups of activities of which the practice would guarantee that the person practicing them ranks in such or such cluster, which obviously does not mean that we will not succeed, but there is little chance. The result probably points out that, as we saw, activities are organised through an accumulation process and that clusters seem to be first created in reference to this process. In any case, it is difficult to define a cluster, i.e. to name it, through a certain number of activities that are supposed to be characteristic of its members and them only. In this respect the clusters only moderately refer to the connotations of the word lifestyle.

It would be a conceivable solution to reverse the approach: neither try to inductively build lifestyles on the basis of similarity in the whole activities nor assume that each person can be characterised through a style, but decide, for instance with a priori reflections, that certain activities and no others define a particular lifestyle by their presence itself[10]. There is still to question the situation of the persons who would not be assigned one of the styles a priori defined. How to consider them? Do we have to conclude that a – potentially large – part of the population has no characteristic style at all?

*6.3 Back to the structural homology of **The Distinction***

The Distinction offers a vision, which has now become canonical, of the links between social positions and lifestyles. There is a homology of the ones and the others. This vision is sometimes interpreted as a form of determinism of social position on lifestyles but it is probably not at all, it is probably more of a dialectic vision of both elements. In any case, we will confine ourselves to analysing the degree to which it is possible to univocally relate lifestyles with the social positions of the people who follow them.

To appreciate the quality of this structural homology, we have to make sure that the different groups of people located according to their lifestyles are precisely placed at various places in the social space suggested by Bourdieu. That is what has been done in graph 17, relying on the one hand – in order to construct the social space – on the indicators created above, i.e. indicators of "volume of assets" as proxy for the global social space and of "composition" of that capital, and relying on the other hand on the lifestyles that have just been defined. In the graph, the ellipses in solid lines each gather 50% of the people

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[9]Details are given here for the typology of three clusters. The results are also the same when we do that exercise with the other typologies.

[10] An example that is often mentioned is that of TV consumers. In fact, neither "complete non-consumers" (declaration no consumption at all), nor "TV-addicts, who declare six, seven, or even eight hours of daily consumption seem to distinguish themselves very clearly about other activities that also characterize them.

characterised by such and such kind of activities. The ellipses in dashed lines gather 90% of the same groups.

Graph 17 here

The ellipses in questions intersect very clearly even if we limit ourselves to the ones at 50% that – as we could presume – isolate the "hard cores" of each lifestyle. Thus a considerable[11] part of the persons sorted in the two cores of the two most extreme styles de facto hold similar positions in the social space. We can compare that result to the one observed in the space of practices where we notice a complete absence of overlapping of the same sets. Admittedly this absence results mechanically from clusterian techniques precisely implemented to build theses lifestyles. From this angle at least, the homology appears quite modest.

Besides, another gap appears with what could have been anticipated in view of Bourdieu's suggestions. The lifestyles that we defined interact with the dimension of the "global capital" but not much with that of the "composition of the capital", which does not seem to intervene. Fundamentally, these lifestyles are organised into a hierarchy according to a volume of global capital.

We observe the same phenomenon if we reverse the perspective by using clusterian techniques to build groups of similar positions in the social space (see graph 18 A) and then if we question the place held by these groups in the space of practices (see graph 18 B): the groups singled out in the space of positions are defined by a level of global capital. One of the groups is defined by a high level of that global capital and the two others by a low level (with a very small difference between the two). These two latter groups distinguish themselves through the composition of the capital[12] but are hardly distinguishable in the space of practices.

Graph 18 here

On the whole, the model of structural homology suggested in *The Distinction* is nowhere to be found. The reason for that is simple. With the operationalisations chosen – assuming that they are satisfactory – the second dimension of social space in the Bourdieusian sense is not effective to plot the lifestyles in the space of practices even if the first dimension, the one of global capital, is very clearly effective. Symmetrically the second dimension of the space of practices, the one that is not the immediate translation of the activity volume, is the one that cannot be retraced by position in a Bourdieusian social space.

6.4 Construction of an adapted social space

The Distinction actually relies on an interpretation of the social space essentially based on the combination of education level and resource level. It is a particular variant of the social spaces in Blau's sense, i.e. spaces that are formed by homogeneous cells regarding various socio-demographic characteristics (Peli & Noteboom, 1999; McPherson & Ranger-Moore, 1991). What is the most satisfactory distribution to render the differences in the synthesised behaviours through the three clusters?

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[11] Around 20% of the respondents in each of the two groups.
[12] Here we find a point commented on elsewhere in Lemel, 2006. The representation built here and the one suggested by Bourdieu differ on a significant point: it is at the bottom and not at the top of the social hierarchy that we observe differences according to the capital composition.

We will examine the problem by starting with the set of socio-demographic characteristics available in the EPCV survey: age, sex, education level, economic level, social status and urbanisation of the place of residence.

► *The importance of gender differences*

Graph 19 presents a panel of variations in the probabilities of belonging to different clusters according to social and demographic characteristics available in the survey.

Graph 19 here

The panel suggests a clear difference between the three clusters delimited above.

Belonging to the first or third cluster first reflects the hierarchical position of the individual under consideration – whether it is plotted by the socio-economic categories, the resource level, the diploma level or by the position on the social status scale.

The same does not go for the second cluster – that of "athletic people" in the broad sense – for it depends only incidentally on the persons' social position. On the contrary, belonging to that cluster massively depends on the gender of the person: men only are part of it[13]. All men do not belong to it but many (over ¼) of them do, so much so that the demographic composition of the two other clusters are substantially modified and that the sex-ratio is unbalanced to the benefit of the women whose proportion reaches 60%[14].

These results are obviously quite coherent with the ones we presented when dealing with the model of structural homology retained in *The distinction*. The second cluster is fundamentally the one that coincided the worst with the scheme and fitted the most hardly into it. In fact, the second dimension of the space of practices (See graph 17) does absolutely not refer to a difference in the composition of the capitals but to a difference in the gender. We will note that this principle of differentiation is totally absent from the graph reference of *the Distinction*. But here, through that "athletic" lifestyle, this principle seems to be very important, first, to locate that "athletic" style, and also because the two other styles gather unbalanced populations in terms of sex-ratio. This was by the way already the conclusion reached by Brasseur et al. in their study of the survey on *Leisure* carried out by the INSEE in 1967: *Leisure activities are often perceived as "cultural" activities. Of course, the importance of characteristics like "diploma" or "socio-economic categories" – importance measured by the frequency of their selection in the segmentations – shows the very large influence of these cultural determinations. But the results also show that such determinations are not enough to render the diversity of practices: the intensity of the latters does not only depend on diploma or social category. To some extent, leisure activities are activities practiced by men or women, or by young or old people without the immediate intervention of the social or cultural level."* Their conclusion was based on a very large range of activities some of which, quite clearly marked by gender, are totally absent from this survey. Nevertheless the conclusion still seems valid.

Besides, we will note that in view of graph 19 two groups of people appear to have particularly marked behaviours: almost all farmers belong to cluster 3 and to a lesser extent the Parisians strictly speaking are more likely to be part of cluster 1.

► *Blau's space adapted to the space of practices*

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[13] In order not to overload the graphs, the difference between men and woman is shown only in one of them but it can be obviously found whatever the control variable.

[14] Please note that among all respondents the proportion of women is higher that the men's.

It is quite tricky to determine the very best distribution in cells. Very many parameters contribute to it depending on the more or less significant detail retained for the components that characterise the cells, depending on the maximum size allowed for each cell, or depending if need be on the settings of the statistical techniques. Moreover, one of the variables has no value for persons who never exercised a professional activity, which means that the field might change. However, it really seems that the basic structure of the distribution in cells retained by regression tree analyses is pregnant enough and relatively independent from specific parameters. It can be summed up as follows:

	Men		Women
	Aged under 48	Aged over 48	
a. Uncompleted			
b. Gen. Elem.			
c. Gen&voc inter.			
d. Gen maturity			
e. Voc. tracks			
f. Tertiary			

We observe a clear differentiation between men and women, with distinctions of educational level for women and age for men who did not graduate, or without distinction of age for the most educated. Beyond that basis, the results apparently begin to depend on the conventions retained, the resource level appearing rather like a complementary factor of differentiation. We note that the urbanisation level does not help construct social spaces. We also observe that the vocational fields of postgraduate studies would be easily assimilated – as for the point of view we are interested in here – to certificates of graduation as opposed to general fields of postgraduate education.

The distribution in cells corresponding to Blau's space thus constructed (in 8 cells) is certainly more predictive of the lifestyles than would a distribution in cells based on *the Distinction*'s model of social space that we had previously constructed [15], but it is still impossible to establish a simple correspondence between cells and lifestyles. Whatever the cell, at least two lifestyles are significantly represented, the only exception being the cell of women with few diplomas who massively (90%) belong to lifestyle 3. Despite a better quality of the association, there is no real homology.

Conclusions

Our empirical analysis of the diversity of practices suggests an accumulation logic. Such logics have long been brought to light by studies on timetables (Gershuny, 2000; Chenu & Herpin, 2002; Degenne, Lebeaux & Marry, 2002), especially in the arena of leisure activities (Coulangeon, Roharik & Menger, 2002). The main criterion to differentiate practices and tastes stems from a logic of plurality or diversity rather than a principle of distinction and legitimacy. That is what we observe.

A cumulativity logic is obviously not much in line with the homological modelisation suggested by Bourdieu. We cannot characterise social groups through combinations of

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[15] The ratio of log-likelihood is 0.19 with that new distribution in cells. It would be 0.13 with the previous one in a weld of 9cells (to 8).

activities on which they would have a monopoly. Such a logic is more in line with the « omnivore/univore » hypothesis (Peterson and Simkus, 1992) that suggests opposing persons practicing many different activities, handle various cultural styles or show multiple preferences, with the ones who devote themselves to a limited number of practices and display more limited and exclusive tastes and centres of interest. We still have to note that the original ideal of omnivorousness deals with tastes and their eclecticism. It emphasises the individuals' competence to cross the barriers between styles and summon up a diversity of cultural styles successively and simultaneously. According to our terminology, this logic is to be found at what we called the "brand" level and not at the "product" level. Thus, Peterson and Simkus observed that within American upper classes, the "snobs", portrayed through an exclusive taste for highbrow music, increasingly gave way to the "omnivores" whose musical preferences were situated both inside and outside the field of highbrow music. Their idea did not deal with varied kinds of activities, which was rather the field or our analysis.

As for the idea of a total individualisation of lifestyles, it does not appear very compatible with the importance of the differences that we observed in the individuals' behaviours according to their social or demographic characteristics.

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Tables and graphs

Graph 1. Percentage of the variance explained by the various components of a principal component analysis of the 44 scales on the whole population aged more than 15
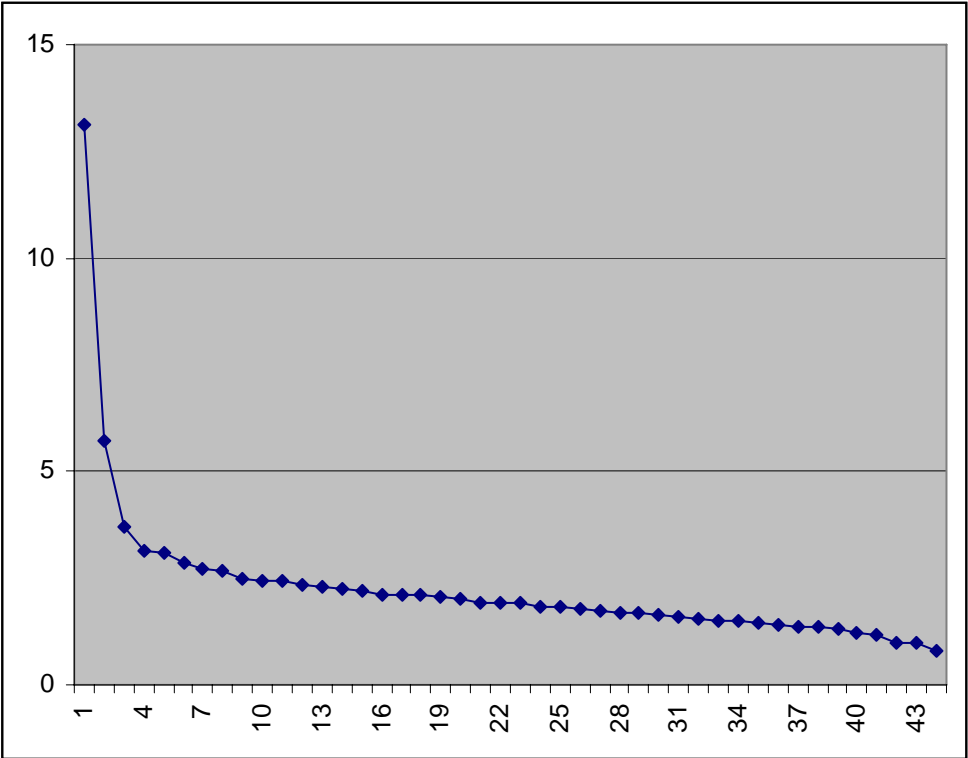
Table 1. Correlations of the 44 scales with the first components of a principal component analysis of the 44 scales on the whole population aged more than 15

ACTIVITY	All Population	Aged under 30	Aged over 60
Visit of an art exhibition	0,28	0,30	0,30
Visit of a museum	0,28	0,30	0,30
Visit of a historical monument	0,28	0,29	0,31
Number of books	0,24	0,23	0,25
Cinema	0,24	0,25	0,19
Concert	0,23	0,24	0,24
National daily newspaper reading	0,23	0,22	0,27
Cultural magazine reading	0,23	0,21	0,22
Theatre	0,21	0,22	0,23
Artistic hobbies	0,20	0,22	0,20
Visit of another type of exhibition	0,19	0,22	0,18
Scientific magazine reading	0,18	0,17	0,18
Number of comic strips	0,18	0,12	0,18
Music Listening	0,18	0,18	0,12
Library attendance	0,17	0,13	0,19
Other daily reading (eco fin, foreign)	0,17	0,16	0,17
Music hall, variety and comedy shows	0,16	0,12	0,16
Other magazine reading	0,16	0,15	0,15
Dancing show	0,15	0,15	0,13
Opera, operetta	0,14	0,18	0,14
Historic or sound-and-light show	0,12	0,11	0,12
Sports event	0,11	0,10	0,09
Swimming	0,09	0,10	0,08
Dancing, gymnastics, yoga	0,09	0,08	0,08
Circus	0,08	0,10	0,03
Golf, horse-riding, tennis, sailing	0,08	0,11	0,04
Jogging	0,08	0,08	0,06
Sports magazine reading	0,08	0,07	0,05
Daily sports newspaper reading	0,07	0,07	0,06
Ping-pong, badminton, squash	0,06	0,03	0,04
Cycling	0,06	0,04	0,04
"Other sports"	0,06	0,04	0,03
Snow sports	0,05	0,11	0,02
Hiking	0,05	0,06	0,06
Bodybuilding	0,05	0,03	0,03
Team sports	0,04	0,04	0,01
Mountaineering, potholing	0,04	0,03	0,06
Radio listening	0,03	0,09	0,01

Regional daily newspaper reading	0,02	0,00	0,09
Bowl games, billiards	0,01	-0,01	0,02
TV magazine reading	0,01	0,07	-0,05
Fishing	-0,03	-0,01	-0,04
Hunting	-0,03	-0,02	-0,02
TV viewing	-0,12	-0,08	-0,14
Percentage of the variance explained by the eigenvalue	*13,19*	*12,46*	*13,94*

Graph 2. Quality of the scales obtained by adding up the activity variables
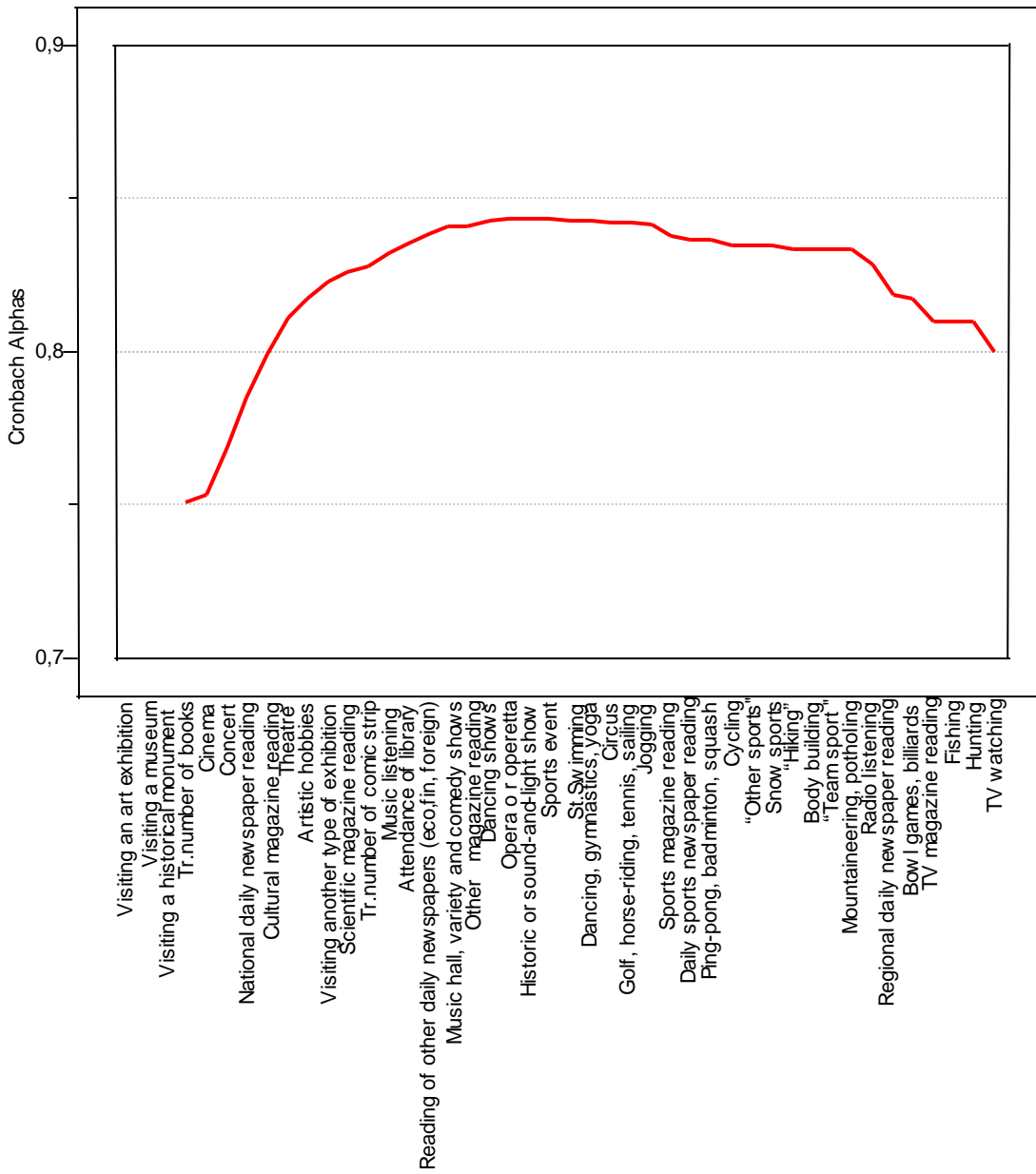
Cronbach Alphas

0,9

0,8

0,7

Visiting an art exhibition
Visiting a museum
Visiting a historical monument
Tr.number of books
Cinema
Concert
National daily newspaper reading
Cultural magazine reading
Theatre
Artistic hobbies
Visiting another type of exhibition
Scientific magazine reading
Tr.number of comic strip
Music listening
Attendance of library
Reading of other daily newspapers (eco,fin, foreign)
Music hall, variety and comedy shows
Other magazine reading
Dancing shows
Opera o r operetta
Historic or sound-and-light show
Sports event
St. Swimming
Dancing, gymnastics, yoga
Circus
Golf, horse-riding, tennis, sailing
Jogging
Sports magazine reading
Daily sports newspaper reading
Ping-pong, badminton, squash
Cycling
"Other sports"
Snow sports
"Hiking"
Body building
"Team sport"
Mountaineering, potholing
Radio listening
Regional daily newspaper reading
Bowl games, billiards
TV magazine reading
Fishing
Hunting
TV watching

Column 1

Graph 3. A pseudo Guttman scale of activities

Intervals of the volume scale	1	2	3	4	5	6	7	8	9	10
Population	1111	1291	1114	765	535	459	197	105	34	15
Circus	0	0	0	0	0	0	0	0,5	1	1
Historic show, sound-and-light show	0	0	0	0	0	0	0	1	1	2
Opéra or operetta	0	0	0	0	0	0	0	1	2	2
Music hall, variety or comedy shows	0	0	0	0	0	1	1	2	2	2
Dancing show	0	0	0	0	0	1	1	2	3	3
Other daily reading (eco, fin, foreign)	0	0	0	0	0	2	2	2	3	2
Theatre	0	0	0	0	1	2	3	3	3	3
Visit of another type of exhibition	0	0	0	1	1	2	2	2	2	2
Artistic hobby	0	0	1	1	1	2	2	2	2	2
Concert	0	0	0	1	2	3	3	3	3	3
Library attendance	0	0	0	1	1	2	2,5	3	3	3
National daily newspaper reading	0	0	0	1	2	2	3	3	3	3
Scientific magazine reading	0	0	0	1	2	2	2	2	3	3
Cultural magazine reading	0	0	0	1	2	2	3	3	3	3
Visit of an art exhibition	0	0	0	1	2	2	3	3	3	3
Visit of a museum	0	0	0	1	2	2	3	3	3	3
Cinema	0	1	1	1	2	2	3	3	3	3
Number of comic strips	0	0	0	2	2	3	3	3	3	3
Visit of a historical monument	0	0	1	2	2	3	3	3	3	3
Music listening	1	1	2	2	2	2	2	2	2	3
Number of books	0	2	3	3	3	3	3	3	3	3
Other magazine reading	0	2	3	3	3	3	3	3	3	3
Radio listening	2	2	2	2	2	2	2	2	2	2
Regional daily newspaper reading	3	3	3	3	3	3	3	3	3	3
TV magazine reading	3	3	3	3	3	3	3	3	3	3
TV Watching	3	3	2	2	2	2	2	2	2	2
Sports shows	0	0	1	1	1	1	1	1	1	1
Daily sports newspaper reading	0	0	0	0	0	0	0	0	1,25	0
Sports magazine reading	0	0	0	0	0	0	0	0	1	0

Explanatory note: The individuals were classified in ten sections according to the values of the "activity volume" scale. Each line in the table corresponds to an activity and the values in line are the 75-quantiles of these variables for the population classified in columns. Thus, and as the variables take values between 0 and 3 (see Annex1), value 0 will indicate that 75% of the persons classified in the column have in fact no practical experience of the activity, value 3 will indicate that at least 25% have the highest practice level and so on. In view of the "size" effect, the average value of these quantiles generally increases with the rank of the section considered but it is no logical necessity (in the case of TV viewing for instance). The activities were then classified in the table with an attempt to obtain at best a structure in which the values of the indicators would increase in columns. The fact that we approximately manage to is a result in itself. In order to highlight this structure, the table boxes were coloured according to the values of the quantiles and the framed "units" of similar values. The boxes that do not obviously fit into the units in which they were classified are shown on a greyed background. We observe that some activities are in fact uniformly spread and that their corresponding quantiles do not vary with the activity sections: Their boxes were coloured green.

Graph 4. For various sports, percentage of the persons « practicing » them among the ones practicing only one, two, three and four sports
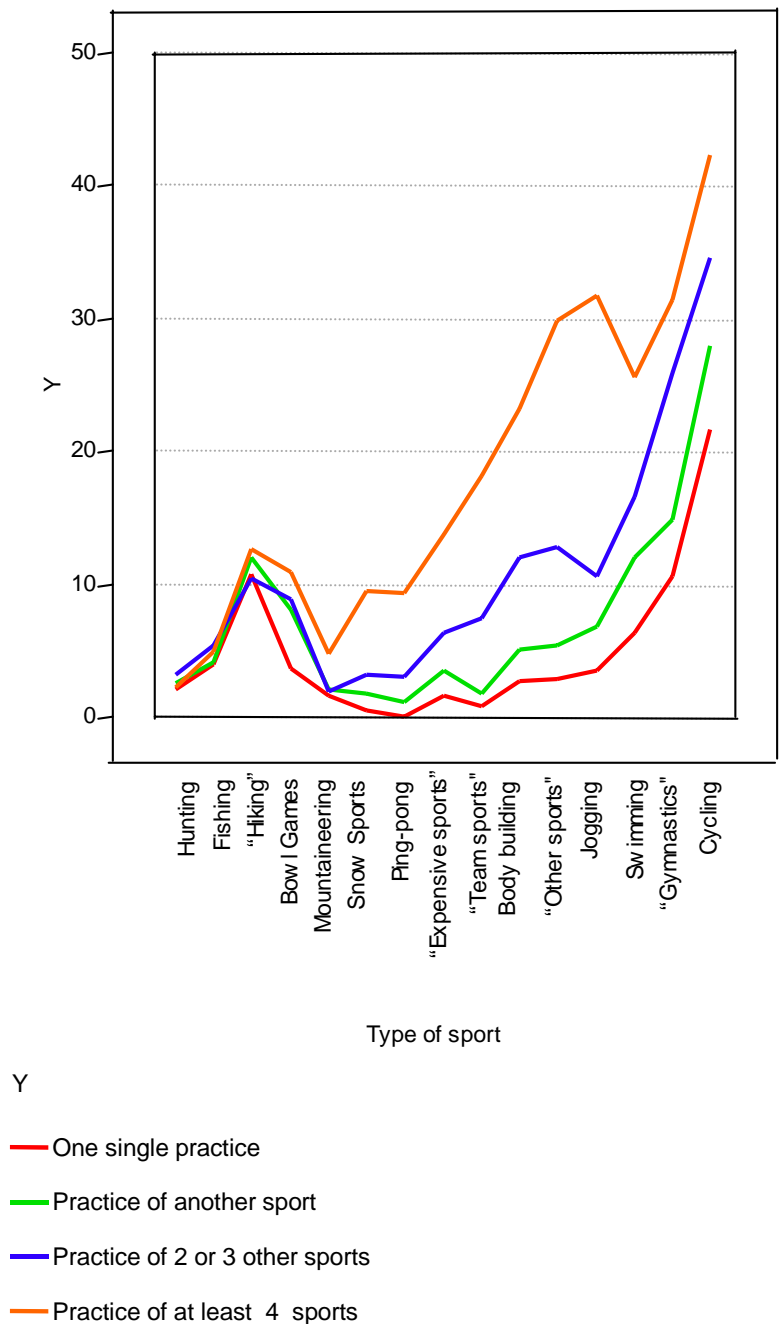
Explanatory note. Practice is defined here as the fact of having at least one episode of sports practice in the year. The graph gives the percentage of the persons practicing such or such sport among those who practice only one sport, among those practicing two, etc. We will have to pay attention to the fact that this graph does not give multi-practice rates strictly speaking but practice rates of each sport taken separately. The fact that the curve are superimposed on one another shows that one is all the more likely to practice a given sport since the number of sports practiced moreover is high.

Graph 5. Average value of the scales according to the number of activities practiced

Average values of the scales

3,0

2,5

2,0

1,5

1,0

0,5

0,0

Hunting
Mountain
ping-pong
Show
Fishing
"Expensive Sports"
Opera or operetta
"Team sports"
Bowl games
"Others sports"
"Waking"
Body Building
Circus
Historical show
Jogging
Swimming
"Gym"
Variety show
Dancing show
Cycling
Other daily reading
Sports show
Daily sports newspaper reading
Theatre
Visit of another exhibition
Sports magazine reading
Library
Hobbies
Scientific magazine reading
Cultural magazine reading
Concert
National daily newspaper reading
Visit of an art exhibition
Visit of a museum
Number of comic strips
Cinema
Visit of a historical monument
Magazine reading
Music listening
Regional daily newspaper reading
Radio listening
TV magazine reading
Number of books
TV watching

Label

Y

—— Less than 5

—— 6 to 10

—— 11 to 20

—— More than 20

Note: See explanations in the text.

Graph 6. Average values of the "volume" scale and average values of the residuals to a prediction by the diploma level only, according to age

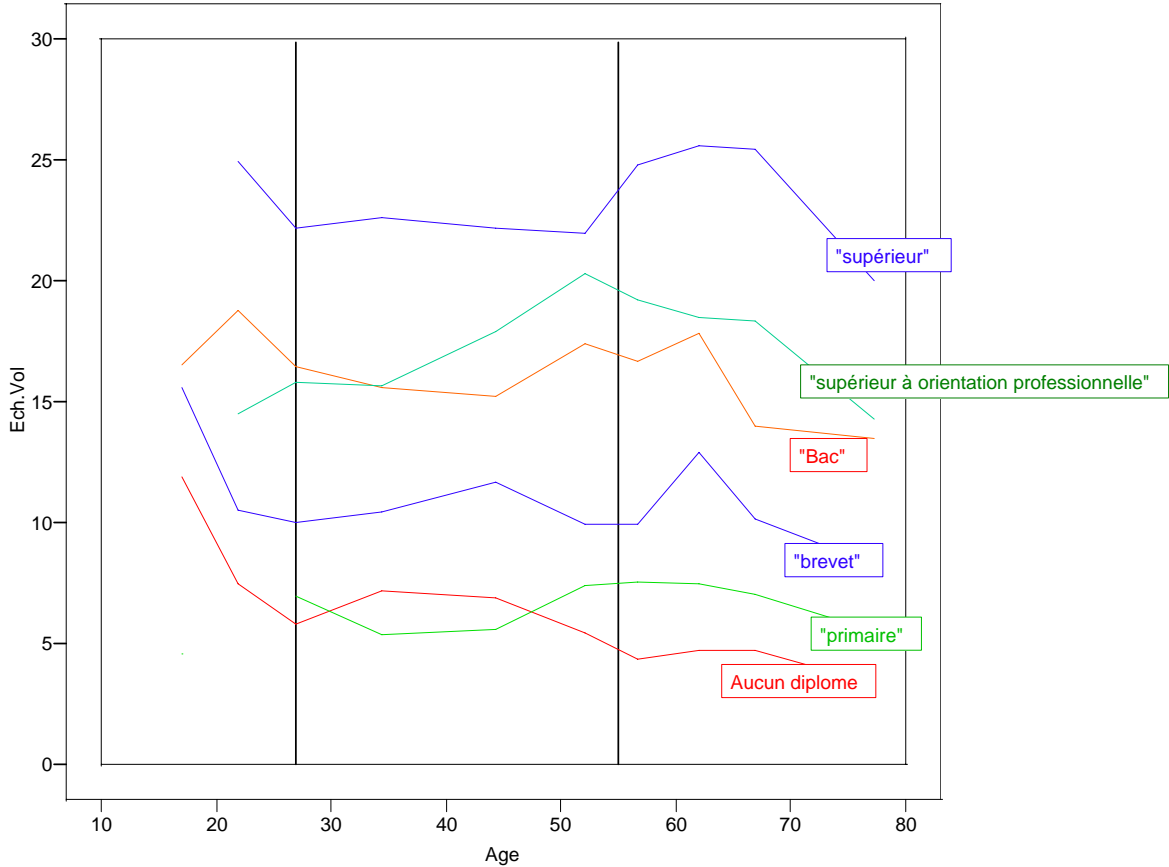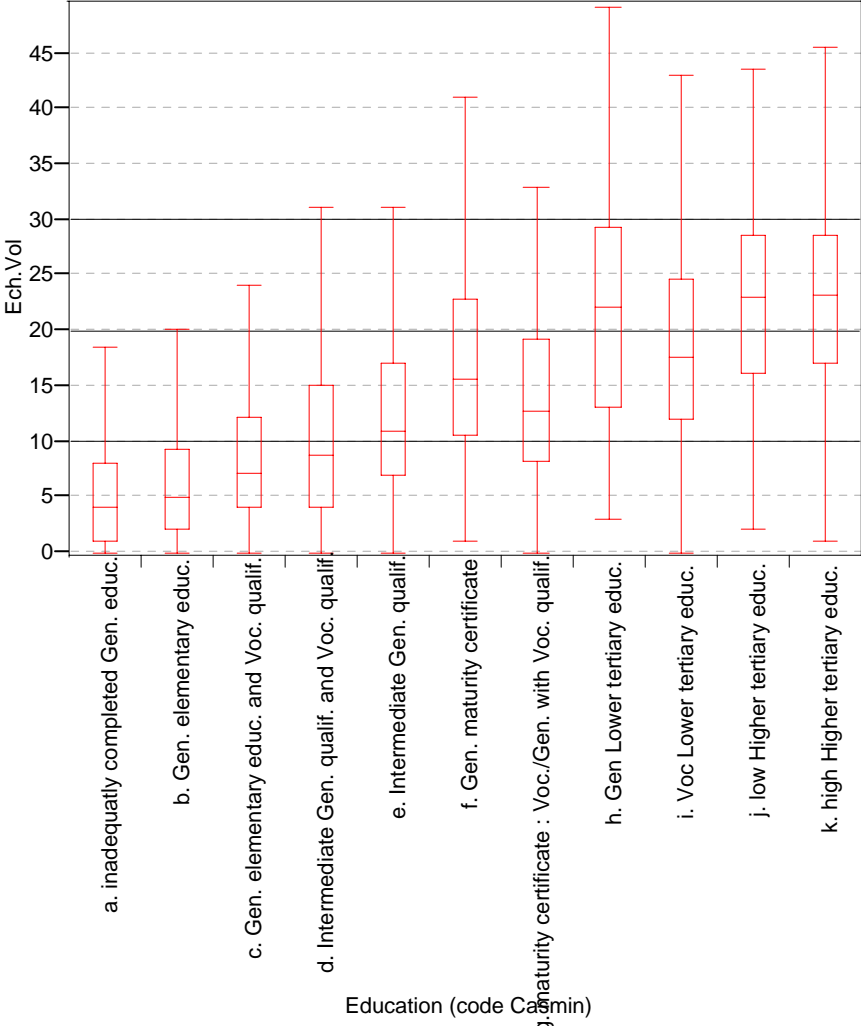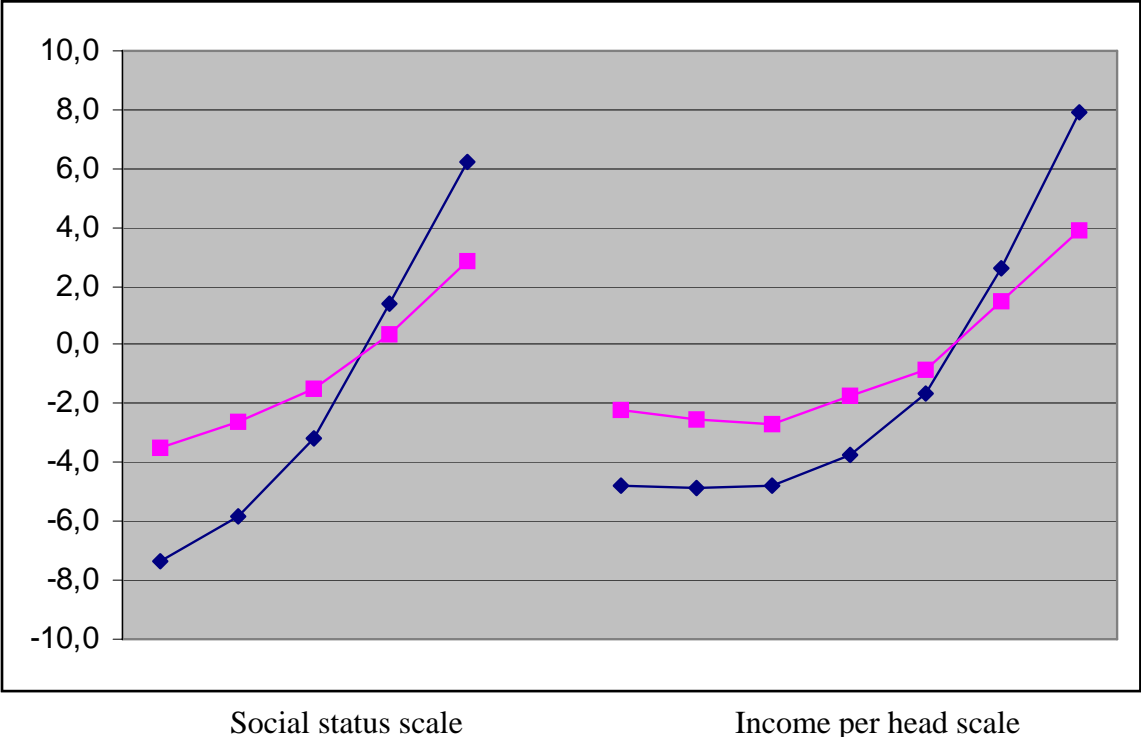***Graph 7. Value of the "activity volume" scale, according to age, for various diploma levels***

Graph 8. « Box-plots » of the volume scale according to the persons' education level.

Graph 9. Coefficients of the scales of social status and standard of living, in regressions on the activity volume scale with and without control of the education level

Source: Annex. Detailed results

Graph 10. Partitioning of the "activity volume" scale by the scales of education level, social status and standard of living

Edu<0,4927528
Count	3603
Mean	8,4988927
Std Dev	7,2630329

Edu<-0,252737
Count	1847
Mean	6,0202842
Std Dev	5,8977999

Edu>=-0,252737
Count	1756
Mean	11,105948
Std Dev	7,6429574

Income<0,4762722
Count	1507
Mean	5,3238459
Std Dev	5,251358

Income>=0,4762722
Count	340
Mean	9,1071448
Std Dev	7,4291239

Status<-1,042341
Count	475
Mean	8,0800331
Std Dev	6,0703891

Status>=-1,042341
Count	1281
Mean	12,22797
Std Dev	7,860571

Edu>=0,4927528
Count	2023
Mean	19,177391
Std Dev	9,5964851

Edu<1,4867388
Count	1323
Mean	17,142602
Std Dev	9,0499898

Edu>=1,4867388
Count	700
Mean	23,023141
Std Dev	9,4259909

Status<0,307856
Count	573
Mean	14,110319
Std Dev	7,8506866

Status>=0,307856
Count	750
Mean	19,459266
Std Dev	9,224021

Income<0,6482529
Count	346
Mean	21,188919
Std Dev	9,3036814

Income>=0,6482529
Count	354
Mean	24,815912
Std Dev	9,2097295

Note. All variables are treated as continuous. The splitting criterion is the minimisation of the sum of the squares of the "volume scale" variable. The splitting tree was divided into two so as to remain readable.

Graph 11. The "over activity" of the socio-economic category of Media and Entertainment
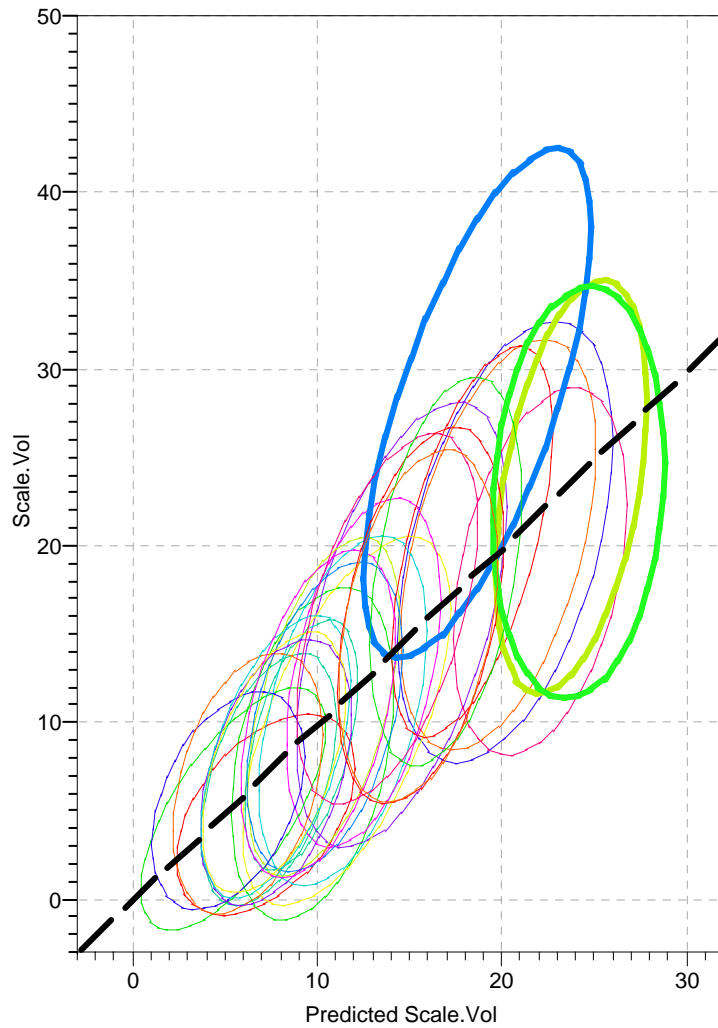
Explanatory Note: For each person questioned, the ordinate axis indicates the value of the activity volume scale, and the abscissa axis the predicted value for that scale by application of model 8b in Annex 4. The right side corresponds to the 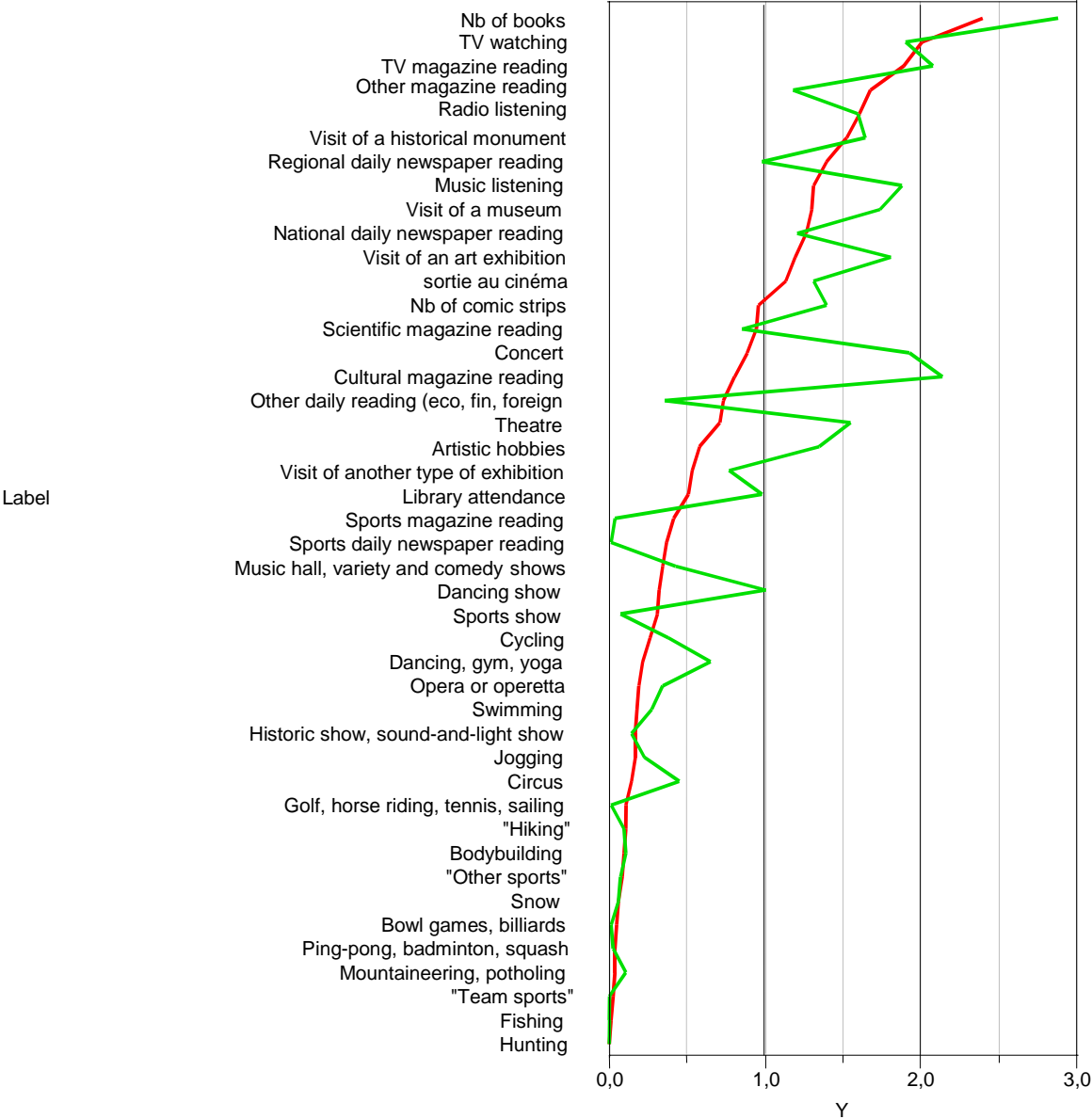place where observation and prediction coincide. Each ellipse is constructed so as to include at least 50% of the persons belonging to a same socio-economic category – hence the 28 ellipses (see Annex 3). The ellipse in dark blue corresponds to CS35. The ellipse in light green corresponds to CS34, *Teachers and Scientists* and the one in pale green to CS31, the *self-employed*, both categories being the most active on average.

Graph 12. Compared practices of all the executives and the CS35 of Media and Entertainment

The chart shows a horizontal axis labeled Y ranging from 0,0 to 3,0, with activity labels on the vertical axis (from top to bottom):

- Nb of books
- TV watching
- TV magazine reading
- Other magazine reading
- Radio listening
- Visit of a historical monument
- Regional daily newspaper reading
- Music listening
- Visit of a museum
- National daily newspaper reading
- Visit of an art exhibition
- sortie au cinéma
- Nb of comic strips
- Scientific magazine reading
- Concert
- Cultural magazine reading
- Other daily reading (eco, fin, foreign
- Theatre
- Artistic hobbies
- Visit of another type of exhibition
- Library attendance
- Sports magazine reading
- Sports daily newspaper reading
- Music hall, variety and comedy shows
- Dancing show
- Sports show
- Cycling
- Dancing, gym, yoga
- Opera or operetta
- Swimming
- Historic show, sound-and-light show
- Jogging
- Circus
- Golf, horse riding, tennis, sailing
- "Hiking"
- Bodybuilding
- "Other sports"
- Snow
- Bowl games, billiards
- Ping-pong, badminton, squash
- Mountaineering, potholing
- "Team sports"
- Fishing
- Hunting

The vertical axis is labeled "Label".

Note. The activities are enumerated in increasing order of their practice level that corresponds to the activities practiced by all executives, including CS35.

Table 2. Correlations with and without control of the practice scales, with a scale of urbanisation level

Activity	Correlation	Correlation after control
Radio listening	0,00	-0,00
TV viewing	-0,08	-0,03
Number of comic strips	0,24	0,03
Number of books	0,39	0,01
Library attendance	0,20	0,03
Regional daily newspaper reading	-0,02	-0,18
National daily newspaper reading	0,43	0,13
Other daily newspaper reading	0,31	0,11
TV magazine reading	-0,00	-0,08
Scientific magazine reading	0,31	0,01
Cultural magazine reading	0,31	0,10
Other magazine reading	0,27	-0,03
Music listening	0,21	0,10
Cinema	0,39	0,17
Theatre	0,32	0,12
Historic or sound-and-light show	0,13	-0,03
Dancing show	0,18	0,03
Circus	0,08	0,04
Music hall, variety and comedy shows	0,21	0,06
Opera, operetta	0,21	0,10
Concert	0,32	0,03
Visit of a historical monument	0,45	0,06
Visit of an art exhibition	0,44	0,07
Visit of another type of exhibition	0,25	-0,05
Visit of a museum	0,46	0,10
Artistic hobbies	0,24	0,02
Sports event	0,08	-0,08
Daily sports newspaper reading	0,03	0,01
Sports magazine reading	0,05	-0,03
Jogging	0,11	0,02
Swimming	0,12	-0,01
Cycling	0,01	-0,03
Bodybuilding	0,03	0,08
Snow sports	0,07	-0,02
"Hiking"	0,05	-0,07
Mountaineering, potholing	0,05	-0,02
Ping-pong, badminton, squash	0,06	0,03
Bowl games, billiards	-0,03	0,01
Fishing	-0,07	-0,03
Hunting	-0,05	-0,06
"Team sports""	-0,02	0,01
Golf, horse-riding, tennis, sailing	0,14	0,01

|		
Dancing, gymnastics, yoga	0,14	0,03
"Other sports"	0,03	0,02
"Activity volume" scale	0,24	0,12

Note. In order to construct the scale of urbanisation level, a grade proportional to the average of the scale representing the "total of the assets" was assigned to each of the 6 categories of place of residence (See footnote 7) for the people living in the corresponding category. The "correlations" are those of the practice indicators with that scale. The "correlations after control" are partial correlations for these indicators with the same scale but controlled by the scale "sum of assets".

Graph 13. The contextual effects related to the urbanisation level on the activity volume indicator
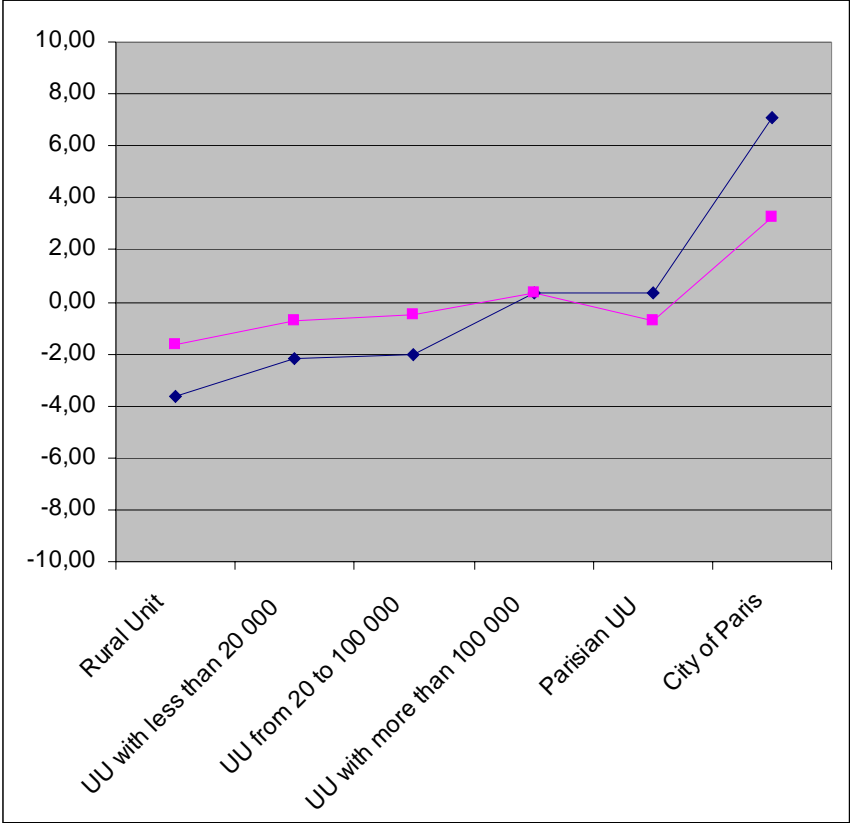
<u>Note</u>. In black, the average values of the urbanisation level indicator; in red, the corrected effects.

Graph 14. The three clusters of the 3-group solution, K-means method in the factor map 1-2 of an overall PCA
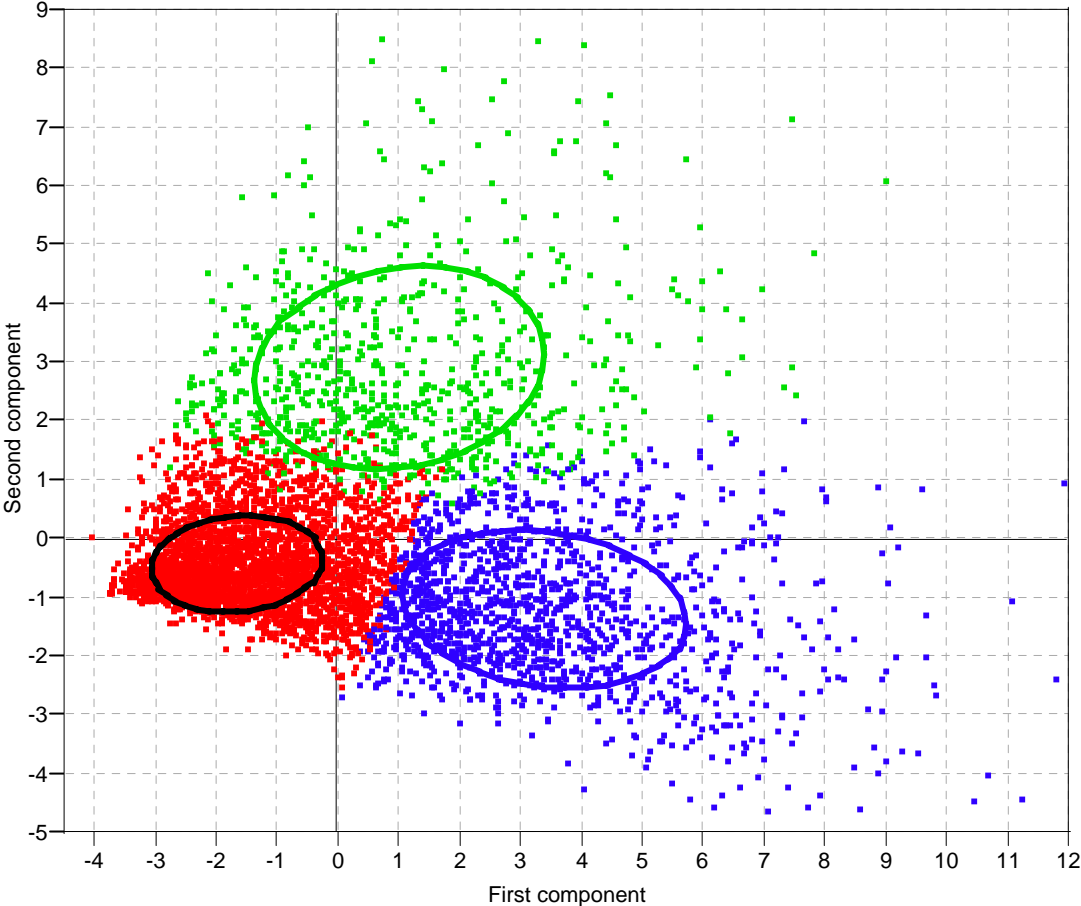
Note. Each ellipse is calculated so as to include 50% of a cluster population. The clusters are obtained by implementing the K-means method applied to the synthetic indicators. In red, group 1; in green, group 2; and in blue, group 3.

Graph 15. For each cluster, the average values of the practice indicators
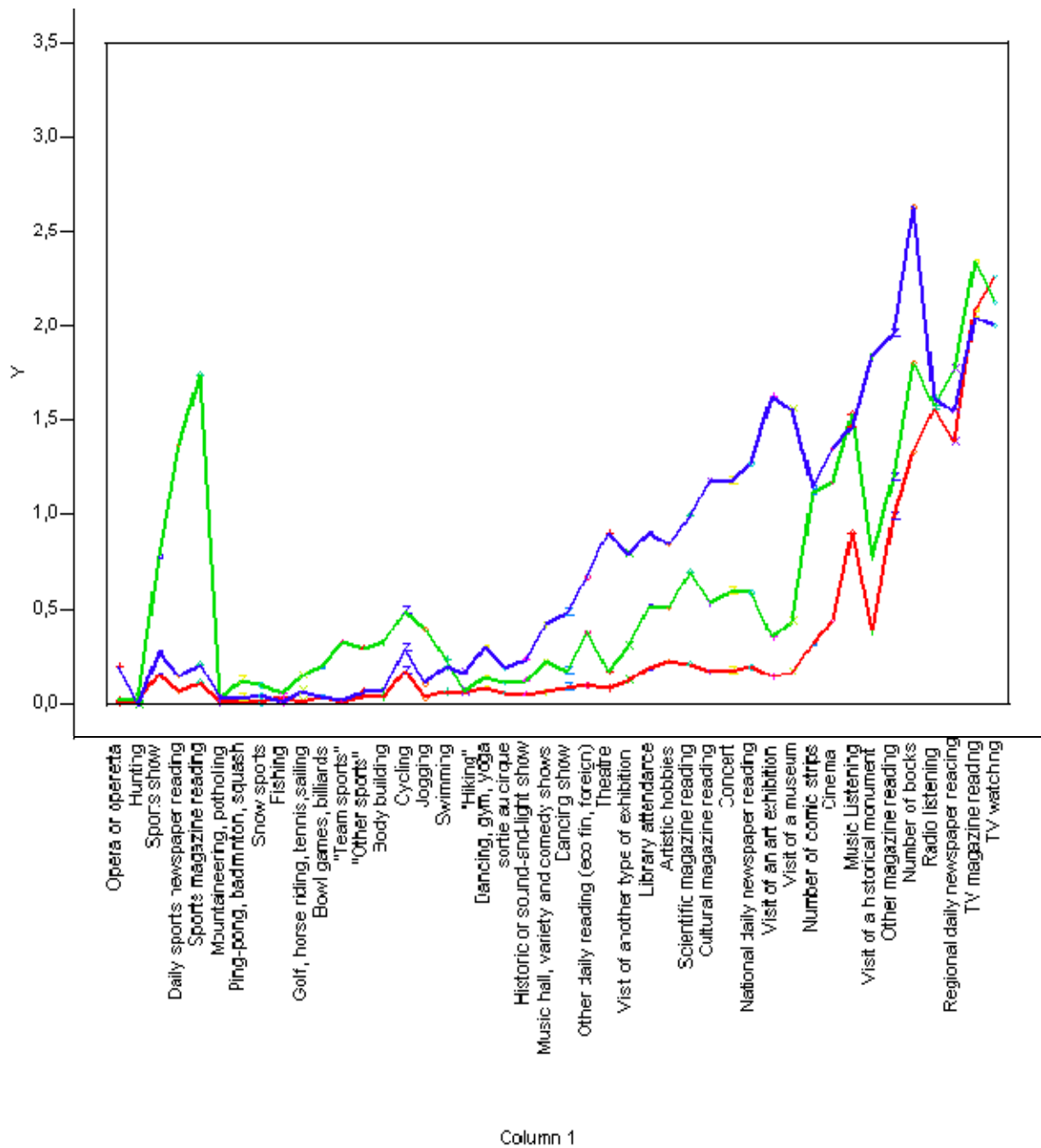
Reading note: For cluster 1, the rates are in red; for cluster 2, in green; and for cluster 3, in blue. The activities are enumerated in increasing order of the average values of their practice level in the whole population, with a few exceptions.

Graph 16. Membership to a cluster according to the practice of a set of activities supposed to be typical
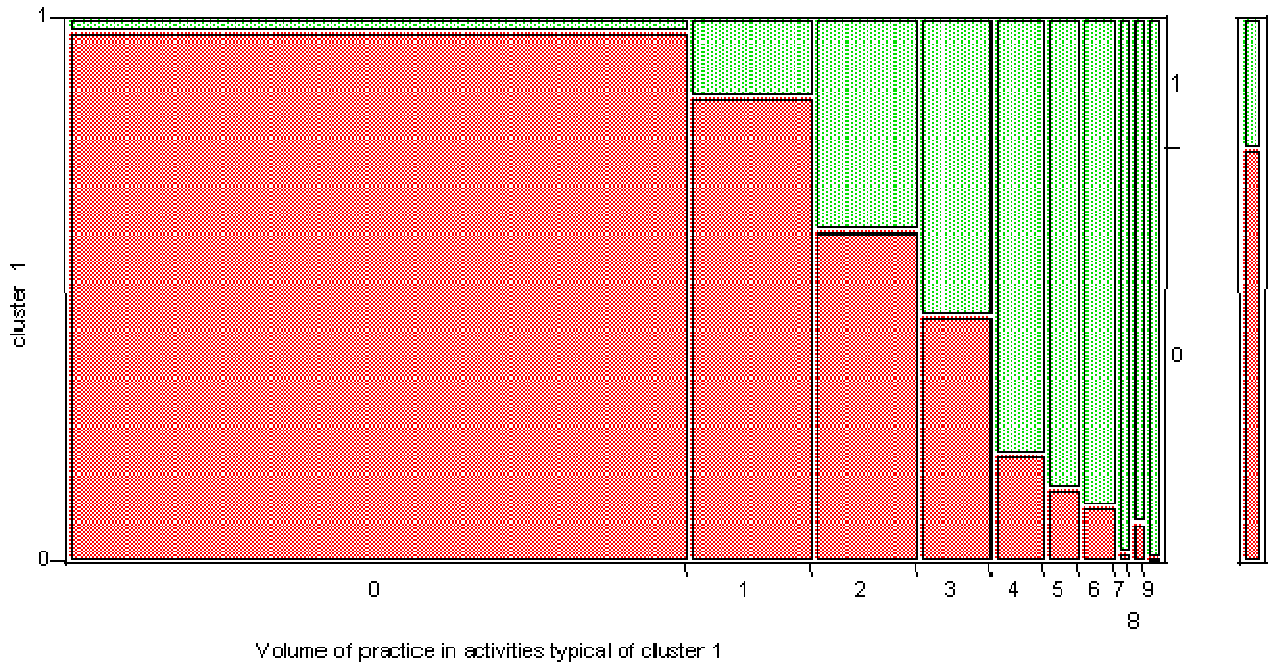

Explanatory Note: In abscissa, numbering the columns, the values of a scale constructed as the sum of three elementary scales (visit to art exhibitions and to museums; going to the theatre), all three scales supposed to be typical of the membership to cluster 1. Each column gives the proportion in clusters 1 and 2 on the one hand, and cluster 3 on the other, of the persons characterised by the corresponding scale value. The green areas correspond to cluster 1, the red ones to clusters 2 and 3. The thickness of the columns is in proportion with the number of persons characterised by the corresponding scale value. We observe that only the levels from 0 and above reasonably (i.e. with a risk of error inferior to 10%) guarantee the membership to a cluster.

Graph 17. The three lifestyles in the social space and in the space of practices

The three lifestyles in the space of practices
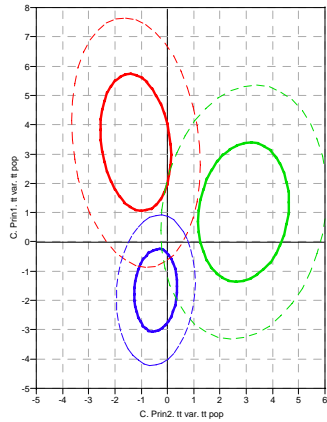
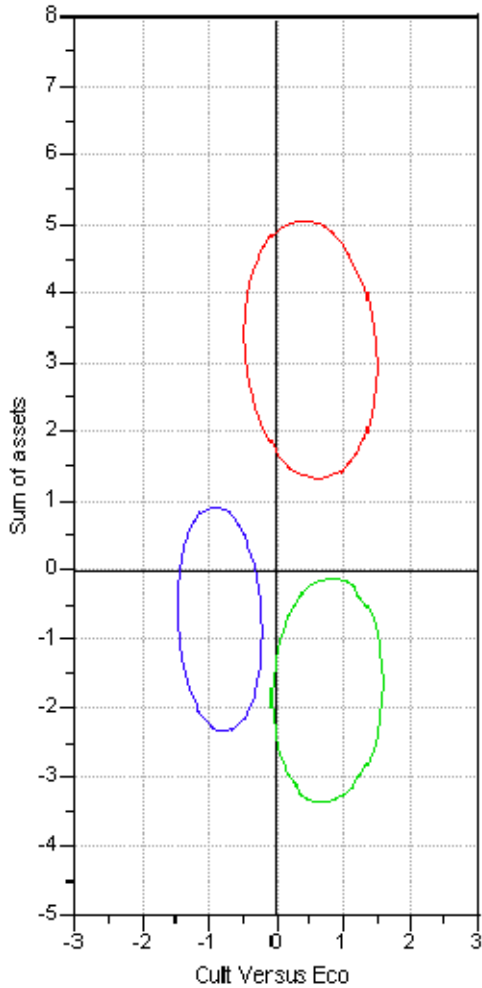### The three lifestyles in the social space
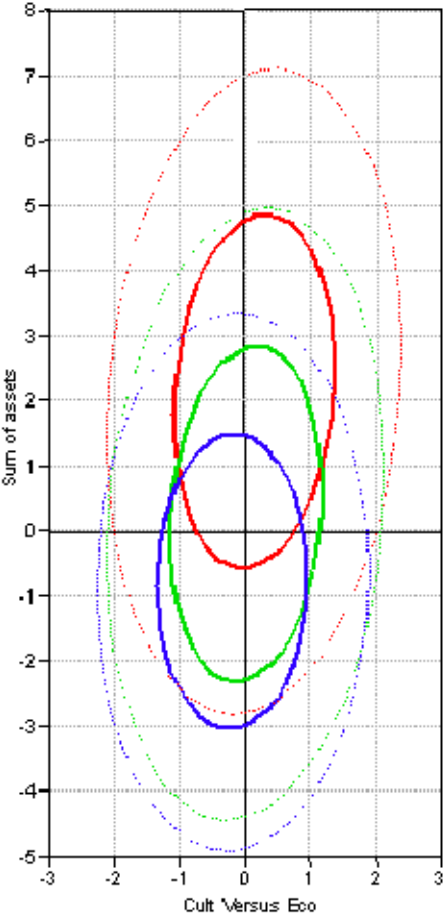
Note. The definition of the axes of "social space" is given in the text, the practice space being defined by the first two axes in the PCA of all the activities. The three "lifestyles" are defined as indicated in the text. The ellipses are constructed so as to include respectively 50% and 90% of the observations resulting from each of these three styles.

Graph 18. Three position groups in the social space and in the space of practices

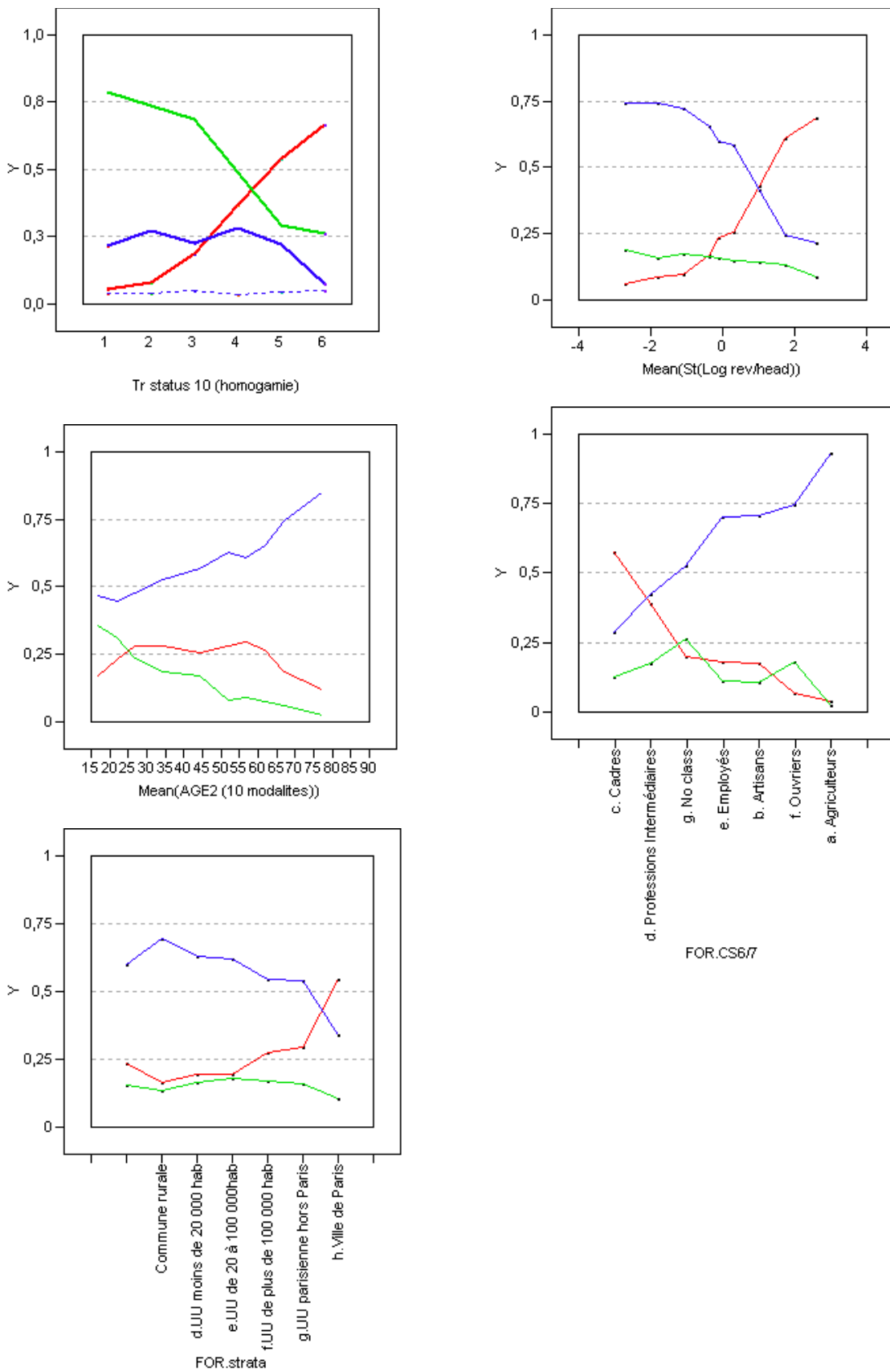## The three groups in the social space

The three groups in the space of practices

Graph 19. The probability of adopting to a lifestyle according to some socio-demographic characteristics

Annex 1. The indicators of practice

Activity	Content
	A. The 44 indicators
TV viewing	Per week, 1.nowatching, 2. Less than 25 hours, 3.26-55, 4. More than 55 hours
Radio listening	Per week, 1. Less than 10 hours, 2.11-25, 3.26-50, 4. More than 50 hours
Number of comics	In the year, 0. No comic strip read 2. 1 to 9, 3. Ten and more
Numbers of books	In the year, 0. No book read, 2. 1 to 9, 3. Ten and more
Library attendance	In the year, 0: None 1:Less than once a month 2:Once to twice a month 3: More than twice a month
Regional daily newspaper reading	0: never 1: seldom 2:from time to time 3:regularly
National daily newspaper reading	0: never 1: seldom 2:from time to time 3:regularly
Other daily reading (eco fin, foreign)	0: never 1: seldom 2:from time to time 3:regularly
Other magazine reading	0: never 1: seldom 2:from time to time 3:regularly note: in view of the way the question is expressed, it covers news like in L'*Express*, *Obs*, etc)
TV magazine reading	0: never 1: seldom 2:from time to time 3:regularly
Scientific magazine reading	0: never 1: seldom 2:from time to time 3:regularly
Cultural magazine reading	0: never 1: seldom 2:from time to time 3:regularly
Music Listening	Per year, 0: never 1: less than once a day 2: once a day r 3: more than once a day
Cinema	Per year, 0: none 1:less than once a month 2: Once to twice a month 3: More than twice a month
Theatre	Per year, 0: none 1:one outing 2: 2 outings 3: 3 outings or more
Historic or sound-and-light show	Per year, 0: none 1:one outing 2: 2 outings or more
Dancing show	Per year, 0: none 1:one outing 2: 2 outings 3: 3 outings or more
Circus	Per year, 0: none 1:one outing 2: 2 outings or more
Music hall, variety and comedy shows	Per year, 0: none 1:one outing 2: 2 outings or more
Opera, operetta	Per year, 0: none 1:one outing 2: 2 outings or more
Concert	Per year, 0: none 1:one outing 2: 2 outings 3: 3 outings or more
Visit of a historical monument	Per year, 0: none 1: 1 or 2, 2:3 to 6, 3: More than 6 visits
Visit of an art exhibition	Per year, 0: none, 1:one, 2:2 or 3, 3:4 visits or more
Visit of another type of exhibition	Per year, 0: none, 1: one 2: 2 visits or more
Visit of a museum	Per year, 0: none, 1: 1 2:2 or 3, 3: 3 visits or more
Artistic hobbies	Per year, 0: none, 1: one 2: More than one
Daily sports newspaper reading	0: never 1: seldom 2:from time to time 3:regularly
Sports magazine reading	0: never 1: seldom 2:from time to time 3:regularly
Sports event	Per year, 0 or 1
Jogging	Number of standardised days per year when the activity has been observed
Swimming	Number of standardised days per year when the activity has been observed
Cycling	Number of standardised days per year when the activity has been observed
Bodybuilding	Number of standardised days per year when the activity has been observed
Snow sports	Number of standardised days per year when the activity has been observed
"Hiking "	Number of standardised days per year when the activity has been observed

Mountaineering, potholing	Number of standardised days per year when the activity has been observed
Ping-pong, badminton, squash	Number of standardised days per year when the activity has been observed
Bowl games, billiards	Number of standardised days per year when the activity has been observed
Fishing	Number of standardised days per year when the activity has been observed
Hunting	Number of standardised days per year when the activity has been observed
"Team" sports "	Standardised sum on i, i = foot, rugby, hand-ball, number of days in the year when the i activity has been observed
Golf, horse-riding, tennis, sailing	Standardised sum on i, i =golf, horse-riding, tennis, sailing, number of days in the year when the i activity has been observed
Dancing, gymnastics, yoga	Standardised sum on i, i = dancing, gym-yoga, number of days in the year when the i activity has been observed
Other sports	Standardised sum on i, I among the other sports, number of days in the year when the i activity has been observed
	B Other indicators used if need be
TV time per week	0 to 168 hours per week, maximum value observed: 135 hours
Radio time per week	0 to168 hours per week, maximum value observed: 140 hours
Number of comic strips read	In the year, 0 to 520 comic strips read (520 being the maximum number observed)
Number of books read	In the year, 0 to 624 books read (624 being the maximum number observed)
Number of sports practice episodes	0 to 999
Number of sports practiced	Among the 27 sports, number of sports for which at least one occurrence has been observed
Tr.nb.sports	0,1,2-4, 5 and more

Note : « standardised » means that the variation range of the indicator was conventionally brought up from 0 to 4
by the rule of three.

Annex 2. TV viewing

The "time spent watching TV" is obtained by adding up the answers to two questions about the time spent watching TV in the week and time spent during the weekend. Both questions are expressed in similar ways: "In the past 12 months, from Monday to Friday, how many hours have you watched TV, either at home or elsewhere? Video cassettes and DVDs are excluded. Watching TV at friends' or in a bar is included". The answer is given in hours, either per day or per week; for the weekend, it is given in hours for the whole period. We can thus see these are rather approximate evaluations, which must not be considered as very precise objective measurements of watching hours.

Generally, it seems that the answers obtained in the survey give higher amounts of time than those obtained through the more objectivising method of book of record sheets of the Timetable survey. The interval between the dates of the surveys may contribute to partly account for the gap, watching TV being probably increasing. We can also suppose that the synthetic questioning of the EPCV survey, that urges the respondents to give rather rounded estimations, produces estimations that are rounded by excess rather than by default. But it is also worth noting that the records from the Timetable survey only concern what is called "primary" watching, during which no other parallel activity is undertaken, which probably excludes a considerable part of the time spent watching TV, during which TV operates as a background and is watched only from time to time. We can imagine that this kind of watching is better considered in the answers given in the EPCV survey. All in all, between the two sources, there is a gap of around half an hour for daily watching. This gap seems quite stable and independent from social position or watching level, with the exception of farmers whose case requires some explanation and of employees to a lesser extent.

	Timetable Survey 1998	*EPCV Survey 2003*
Farmers	1hr	2 hrs 10 min
{Craftsmen, shopkeepers		
{Business owners	1hr 30 min	2 hrs
Executives	1hr 10 min	1 hr 40 min
Intermediate professions	1hr 30 min	2 hrs 10 min
Employees	1hr 40 min	2 hrs 30 min
Workers	2 hrs	2 hrs 30 min
Retired	3 hrs	3 hrs 20 min
Students or pupils	2 hrs	2 hrs

Figures are rounded to tens of minutes

A distinctive feature of TV viewing is that it is about the only activity studied here of which practice decreases as the practice of other activities increases, thus defying the general tendency of cumulativity of practices. The only activities of which the scales are positively correlated to the time spent watching TV are fishing, reading regional daily newspaper (with extremely low – even null – coefficients) and ... reading TV magazine (very significantly correlated this time). In all other cases, the correlation coefficients are positive. Reading activities (national daily newspapers, books), visits and outings (historical monument and museum; concerts and above all, cinema) are particularly antagonistic with TV viewing. Consequently, the scope of TV viewing is strongly negatively correlated to the "activity

volume" scale[16] and that correlation coefficient is even higher (in absolute value) than the other correlations with the 44 elementary scales (Corr = -0.29, N=5626).

We may obviously ask ourselves about whether to grant TV viewing a specific status by reference to the "size" effect that we described in the text body. It would be tempting to interpret it not as an activity among others (just having a distinctive feature of being all the less practiced since the others are more practiced) but in a way as the "negative double" of the "activity volume" scale, also constituting a synthetic summary of the "size" effect. This interpretation is however quite unlikely.

On the one hand, this scale of TV viewing is far from being activities a synthesis as satisfactory for the practice of other activities as the volume scale is: the average of the absolute values of its correlations with the 43 other scales (excluding the reading of TV magazines) is 0.09, compared to the same average of 0.30 for the volume scale. On the other hand, the direct analysis of the regression tree using the different scales of activities to "predict" the "volume of activities" never select the time spent watching TV: this volume of the time spent watching TV is actually not very predictive of the "activity volume". It could be seen well in graph 3 through the values of the quantiles: they do not vary much with the section considered in this graph, unlike many other activities.

In fact, TV seems to act as a background for almost every one even if this background tends to decrease quantitatively with the increase of other activities. The number of TV-phobics (who declare never watching TV) noticeably increases among the most active persons whereas the percentage of TV-addicts ("heavy viewers") decreases. However, "usual" viewers (watching TV with a modal volume) are repeatedly found at all levels of activism:

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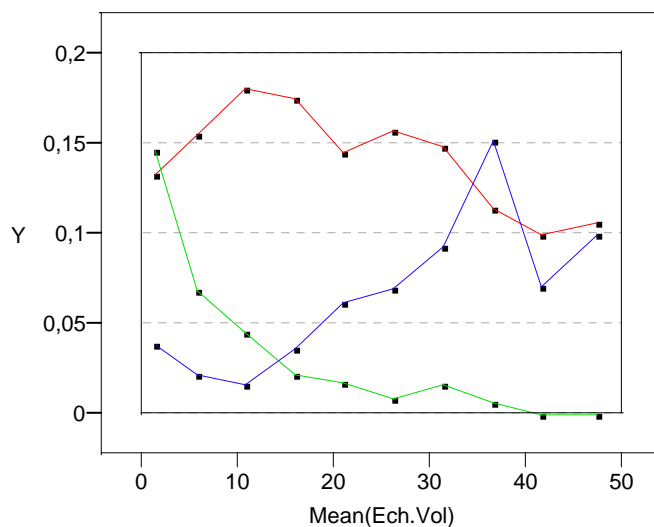
[16] The construction of the activity scale does not include the scale of TV viewing, nor that of TV magazine reading. The result is therefore no artefact.

Annex 3. Explanatory variables

Age is given in completed years. The average age in the sample (persons aged more than 15 and living in ordinary households) is 45 years old. The persons aged over 60 represent 30% of the sample, those under 20 represent 5%.

The classification used for education levels is conceived so as to enable international comparisons (Brauns et al., 2003). It distinguishes primary, secondary and postgraduate levels on the one hand, general and vocational tracks on the other. The modalities are the following.

Without diploma	18%
"Primary" education	15%
"*Brevet* (GCSE) or equivalent"	31%
"Baccalaureate*"*	*7%*
Vocational postgraduate	14%
"Postgraduate"	14%

The French PCS occupational code had to be slightly amended. The category including the clergy (CS44) was excluded for it concerned only 3 persons. Besides, no distinction in the survey can be made between the different categories of farmers, who were therefore grouped together into one single category.

In order to facilitate international comparisons, we use John Goldthorpe's class-scheme that includes 7 categories:
> *Service class*
> *Non-manual workers*
> *"Petty Bourgeoisie"*
> *Farmers*
> *Skilled Workers*
> *Unskilled Workers*
> *Agricultural Labourers*

For the persons having no occupation, a *"No class"* category was added. A presentation of the class-scheme can be found in Lemel, 2004.

The status scale used is described in Lemel, 2006. This kind of scales quotes occupations and socioeconomic categories so as to reconstitute the structures of homophily and professional homogamy.

The income is the total income declared by the household for the year, after charging in case of non-declaration (procedure described in the information on the EPCV survey). This evaluation is divided by the size of the household and transformed by logarithm. The income has then been classified again into ten sections of equal amplitude, the three last ones being grouped together because of the respondents.

As for urbanisation, the indicator is based on the size of "urban areas". These areas are mainly defined from the continuity of the habitat and then classified by population size. The agglomeration of Paris can be distinguished from the city of Paris strictly speaking, which has been done. Unfortunately, the data do not allow to distinguish the central core – or cores – of the periphery of the other areas. The distinction is all the less important since the areas are small but it would have certainly been interesting to make a distinction for the largest areas. All in all, there are six areas, by supposedly increasing order of urbanisation degree from rural

community (out of any urban area) up to the largest "urban areas", those with more than 100.000 inhabitants, then the Parisian "urban area" and the city of Paris itself.

Annex 4. The detailed results of the explanatory regressions of the "activity scale"

The regressions are classified by increasing order of the R2.

	Model	1	2	3	4	5	6	7	8b	8c	8a	8d	8e	9	10	11	12
	R2	eps	0,06	0,09	0,13	0,23	0,25	0,35	0,37	0,38	0,38	0,38	0,39	0,40	0,41	0,41	0,42
	df	1	5	5	7	7	5	5	10	12	10	12	10	17	17	19	23
Education level																	
	a. incompleted							-7,3	-7,2	-6,4	-7,1	-6,3	-6,0	-5,6	-5,6	-5,7	-5,3
	b.Gen elem							-6,9	-6,0	-6,6	-5,7	-5,5	-5,6	-5,1	-5,6	-5,5	-5,1
	c.gen&voc inter							-1,8	-2,4	-1,4	-2,3	-1,4	-1,4	-1,4	-1,2	-1,1	-1,2
	d. Gen maturity							3,2	2,6	3,0	2,5	2,3	2,8	2,0	2,5	2,2	2,1
	e. Voc. tracks							3,4	3,5	3,0	3,6	3,1	3,2	2,9	2,9	2,8	2,8
	f. Tertiary							9,5	9,6	8,4	9,0	7,7	7,4	7,1	7,0	7,3	6,8
Social status																	
	status[1]						-7,3						-3,1	-3,6	-2,2		-2,7
	status[2]						-5,8						-2,3	-2,5	-1,6		-1,9
	status[3]						-3,2						-1,2	-0,6	-0,8		-0,5
	status[4]						1,4						1,0	1,4	0,9		1,4
	status[5]						6,2						2,7	2,5	1,9		1,8
	status[6]						8,7						2,9	2,7	1,8		1,8
Income per head (Log)																	
	Log(Rev/head)[3]				-4,9					-2,0					-1,5	-2,4	-1,3
	Log(Rev/head)[4]				-5,4					-3,0					-3,2	-3,1	-3,0
	Log(Rev/head)[5]				-4,9					-2,5					-2,1	-2,1	-2,0
	Log(Rev/head)[6]				-3,7					-1,8					-1,5	-1,5	-1,5
	Log(Rev/head)[7]				-1,2					-0,6					-0,4	-0,2	-0,5
	Log(Rev/head)[8]				2,8					1,7					1,5	1,7	1,3

|	G	H	A	B	C	D	E	F
Log(Rev/head)[9]			**8,0**	**3,9**		**3,5**	**3,5**	**3,3**
Log(Rev/head)[10]			**9,3**	**4,2**		**3,8**	**4,1**	**3,8**
Class position								
No class			**4,1**	**3,5**	//		**3,9**	//
a. Service class			**9,1**	**3,6**	1,3		**2,5**	1,0
b. Non-manual W			0,6	**0,7**	**1,2**		0,6	**1,3**
c. Petty Bourgeoisie			-0,5	-0,3	**-1,6**		-0,6	**-1,5**
d. Farmers			**-5,2**	**-3,1**	**-3,3**		**-2,6**	**-2,6**
e. Skilled Work			-0,7	-0,6	0,7		**-0,8**	0,5
f. Unskilled Workers			**-3,3**	**-1,4**	1,2		**-1,2**	1,0
g. Agricultural Labourers			**-4,2**	**-2,3**	0,4		-1,8	0,3
Urbanization								
Rural areas	**-3,6**			**-1,9**				
Small urban areas	**-2,1**			-0,8				
Middle urban areas	**-2,0**			-0,7				
Great urban areas	0,4			0,0				
Paris. Urban area	0,4			-0,3				
Paris. City center	7,1			**3,8**				
Age								
30 years and less		-1,7		**12,4**				
60 years and more		**12,4**		**-13,9**				
Age x (less than 30 years)		0,0		**-0,5**				
Age x (between 30 and 59 years)		**-0,1**		0,0				
Age x (60 years and more)		**-0,3**		**-0,2**				
Gender								
man	**-0,3**							
woman	**0,3**							

Note: Each column corresponds to a regression of the explanatory variables for which coefficient values are given in the variable column of "volume scale". The explanatory variables are described in Annex 3; the construction mode of the variable explained is indicated in the text. The columns are listed by increasing order of the R2. The coefficients in bold are significant at a threshold of 0.01, the others are not.

The exact regression fields differ according to whether the model includes the scale of social status among the explanatory variables. All the population aged over 15 is concerned if the variable is not included among the regressors, i.e. 5626 observations. If the variable is included, it is the population aged over 15 who have or already have had an occupation that is concerned (information about employment is necessary in order to assign a quotation of social status), i.e. 4813 observations.

Annex 5. Sensitivity of the results to the retained indicator of activity volume

The two indicators of volume – i.e. the Likert scale we used and the principal component of a PCA of all the variables – are very highly correlated. The correlation coefficient is 0.99 on all the population and the cloud of observations is obviously concentrated around the right of the regression (orthonormal regression in the graph below):

Figure A. Distribution of the persons according to the values of the «volume scale » and that of the first component of an overall PCA
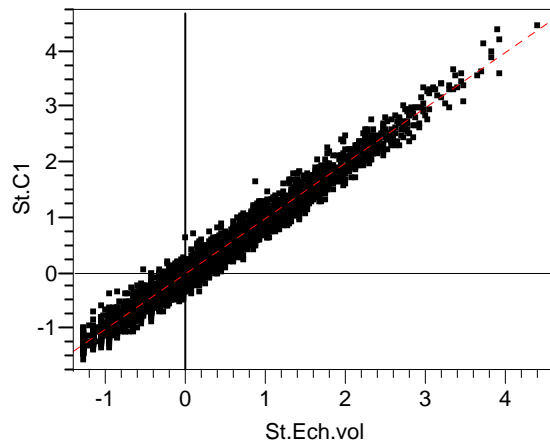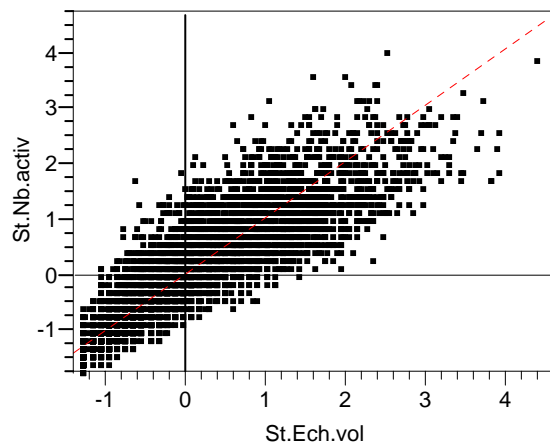

Note. The variables are centred and reduced.

Another indicator would be, as pointed out in the text, the number of activities of which at least one episode was declared.

This last indicator is highly correlated with the two previous ones but to a lesser level however (0.87) and the distribution is much more scattered around the right of the regression (see Figure B) with a tendency to increase with the "volume scale" (till a certain level however). On the other hand, what we could call "intensity of practice", i.e. the average number of yearly episodes per activity of which at least one is declared, tends to increase systematically with the "volume scale". In other words, the "volume" (as measured by the scale thus denominated) does not increase through an arbitration favouring the multiplication of activities undertaken to the expense of the number of episodes devoted to each activity. "Eclecticism" and "devotion" go together.

Figure B. Distribution of the persons according to the values of the «volume scale » and that of the number of activities

Note. The variables are centred and reduced.

We can anticipate that the effects of socio-demographic characteristics on the activity "volume" will be similar, no matter if we approach the activity by the "activity scale" or by the first component, in view of the very high correlation between these two indicators. It is less obvious for the third. The table below, giving the results of the regressions of the same explanatory variables on the three indicators separately, shows the great similarity of the conclusions we might obtain.

	Prin1	Vol. Sc	Nb. Acti.
_R2_	_0,38_	_0,39_	_0,38_
Aged under 30	**1,34**	**1,29**	**1,04**
Aged over 60	**1,60**	**1,47**	**1,26**
Aged under 30	**-0,05**	**-0,05**	**-0,05**
Aged 30 to 60	0,00	0,00	**-0,01**
Aged over 60	**-0,02**	**-0,02**	**-0,03**
a. Uncompleted	**-0,72**	**-0,74**	**-0,70**
b. Gen elem	**-0,59**	**-0,59**	**-0,52**
c. gen&voc inter	**-0,22**	**-0,23**	**-0,13**
d. Gen maturity	**0,24**	**0,26**	**0,19**
e. Voc. tracks	**0,37**	**0,37**	**0,43**
f. Tertiary	**0,92**	**0,94**	**0,74**
Rural areas	**-0,21**	**-0,20**	**-0,13**
Small urban areas	**-0,09**	**-0,09**	0,01
Middle urban areas	**-0,07**	**-0,07**	-0,01
Great urban areas	-0,01	0,00	**0,06**
Paris. Urban area	-0,03	-0,03	**-0,06**
Paris. City center	**0,42**	**0,40**	**0,14**

The conclusions on the net effects of the education level are clearly independent from the specific indicator retained. In terms of urbanisation, the opposition between rural areas and the city of Paris remains unchanged. It is perhaps in terms of age that differences could be observed: all things being equal, the stage when the age indicator tends to decrease for the intermediate age group seems less clear.