EVERYDAY CATEGORISATIONS OF FRENCH SOCIAL SPACE

Analysis Based on a Card Game

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Everyday Categorisations of French Social Space
Analysis Based on a Card Game

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Abstract. Although many studies have examined the ability of socio-occupational classification to objectify social class divisions, there are very few that study their correspondence with the everyday categorisations used by French people in their thinking about society. Based on a "card game" inspired by the survey by Luc Boltanski and Laurent Thévenot in the early 1980s, this article describes everyday class rankings in order to assess their degree of convergence with official classifications, and particularly with socio-economic classification. Conducted with a sample of 547 persons, our survey shows the presence of shared rationales and typical variations within what are assumed to be the highly differentiated classifications used by people. In fact the majority of these categorisations rely on occupational criteria that are ordered according to a hierarchical rationale (by distinguishing between employed and self-employed, and then according to an internal classification amongst the employed), or in terms of occupation (by work and occupational sector), and they confirm a form of internalization of official divisions within the social world.

Key words.—Everyday categorisations—Classification—Occupations and socio-economic categories—Experimentation—Quantification

The scientific controversies of the years 1990–2000 about social classes in most European countries, whether they foresee their "death" (Clark and Lipset 1991; Evans 1995), their "return" (Chauvel 2001; Bouffartigue 2004) or their "promising future" (Goldthorpe and Marshall 1992), have often unfolded in conjunction with a questioning of the taxonomies used to classify, prioritize, distinguish and recognize occupations and social groups. In the German case, Andreas Pfeuffer and Franz

Translated by Peter Hamilton

This survey, part of a body of work of the Centre Maurice Halbwachs (CMH-CNRS) on the understanding of the European Project for socio-economic classification (ESeC) commissioned by INSEE (Employment Division) and funded by Eurostat as part of the INSEE/Eurostat convention, has received support from the ANR programme, Sciences, Technologies et Savoirs en Sociétés. Enjeux Actuels, Questions Historiques [Science, technology and knowledge in societies. Current issues, historical issues] during the period 2010 to 2013. Extensive collaboration enabled data collection and analysis of unconventional statistical material. We would especially like to thank all colleagues who helped us with their advice and comments on earlier versions of this text.

Schultheis (2002) established a link between the lack of official socio-occupational nomenclature and the failings of studies on social inequalities, leaving the field open to a "monolithic" vision of society where social structures would become "invisible." By contrast, in Britain, the vigour of the debates about social classes has resulted in numerous controversies about the most relevant classifications to measure them, between the supporters of the schemas of the Marxist sociologist Erik Olin Wright, and of the neo-Weberian John H. Goldthorpe (2000) and Cambridge sociologists, the defenders of a continuous measurement of social positions from a scale of social interaction and stratification. They have also led to the questioning of the official nomenclature, *Social Class*, widely used since 1911 (Szretzer 1984) and the adoption of a new classification inspired by the Goldthorpe class schema (Rose and O'Reilly 1997; Rose and Pevalin 2002). As for the European Union, the growing importance of international comparative studies on social inequalities and the emergence of social policies have helped to impose the setting up of a project on European socio-economic classification (Brousse 2008, 2012; Rose and Harrison 2010; Penissat and Rowell 2012).

As for the French case, the decline of references to social class has been accompanied since the early 1990s by a decline in the use of the occupations and socio-occupational categories nomenclature (PCS—*professions et catégories socioprofessionnelles*) by INSEE (Pierru and Spire 2008). This official taxonomy is sometimes considered now to be less in line with the changes in French society and less able to describe social inequalities. Critical studies highlight the "blurring" of the boundaries between social groups due to a questioning of the categories of description of the social world that emerged from the post-war period—for example, the words used to describe an occupation refer less to the "Parodi grids" of the collective employment agreements of 1946 in France and more often to the "new spirit of capitalism" based on management (Chenu and Burnod 2003)—and the emergence of new dividing lines (Fitoussi and Rosanvallon 1996) whether generational (Chauvel 1998), ethnic (Fassin and Fassin 2009) or related to employment status (Maurin 2002). Other work, in response to this, showed that the PCS retained all of their ability to account for social divisions in France (Coutrot 2002; Amossé 2012).

Although they take opposing views in terms of their findings—about the relevance or otherwise of socio-occupational classifications for thinking about the world in terms of social class—what these studies have in common is that primarily they discuss the relevance of scientific and/or official classifications in terms of their ability to describe the social world objectively. In a complementary manner, other studies, including those that are concerned with social stratification and occupations, have sought to question the subjective relationship of individuals to hierarchies and social classifications. This is the case for example, of studies on the strength of feelings of class identity, and the social value or prestige associated with different occupations, conducted by sociologists who aim to establish scales for the social status of occupations. In both cases, the same survey methods have been used: an opinion poll and a question that uses the underlying criterion of sociological theory on which the investigation is based, either explicitly (the feeling of class membership) or implicitly (assessments or scores that measure the prestige or the value of occupations).

Less common are surveys that question the relationship between scientific and/or official taxonomies and ordinary categorisations and modes of identification in society.[1] In the 1970s–1980s, a number of studies examined ordinary or "subjective"

categorisations of occupational space (Coxon *et al*. 1974, 1979 and 1986; Joye and Lorenzi-Cioldi 1988), using original surveys using play and games (vignettes, card games).[2] The aim was to question both the possibility and the usefulness of a universally valid scientific classification. This type of investigation and questioning was also employed in France by Luc Boltanski and Laurent Thévenot (1983) in the early 1980s by using a card game. Their approach was to ask respondents to build their own social and occupational taxonomy and concluded that there was widespread diffusion and acceptance of the PCS nomenclature in French society.

The study presented here is part of this line of research. If the PCS is less relevant to describe the social world, can we conclude that the view of and everyday language about the socio-occupational world, built up during the post-war era, have now become endangered? What is the degree of convergence between this taxonomy, based on the socio-occupational divisions that emerged from collective agreements and the status of the public services, and everyday categorisations? To what extent are the rationales of official classifications of occupations (still) known and internalized by individuals? The answer to these questions requires a thorough review of current forms of everyday categorisations of socio-occupational space. For this, we follow the perspective outlined by Alain Desrosières and Laurent Thévenot ([1988] 2002: 51) that "the most direct way of looking at this everyday ability to identify oneself in social space is to ask, in the same way as an anthropologist trying to understand a foreign culture, what are the classifications that the natives themselves use?" This questioning is implemented here by an adaptation of the card game experiment used by Boltanski and Thévenot in the early 1980s.

Boltanski and Thévenot noted in their own survey that respondents tended to sort the cards according to a "*maraboutdeficelle*" rationale [*trans*. maraboutdeficelle—chain verse, where the last word in a line of a poem or song becomes the first word in the next], without the possibility of inferring coherent and common rationales of classification from it (Desrosières and Thévenot [1988] 2002). Does the fact that respondents do not use one or more criteria for classification in a systematic and consistent manner and instead build their taxonomy more by "assimilation" and adjustment around "prototypical" figures mean the absence of an incorporated social meaning? The answer to this question requires an accurate review of the everyday forms of categorisation of socio-occupational space, which is the central issue of this article. We have sought to identify the similarities and differences in the way people categorise this space, and then to study the links between these categorisations and social characteristics of respondents.

The first part of this article is devoted to a discussion of the work on everyday categorisations of social space and a presentation of our own approach, by situating it particularly in relation to the survey carried out by Boltanski and Thévenot in the early 1980s.. Then, after describing the features of our empirical investigation methods and our choices about how to analyse the results, we devote the following sections to the analysis of everyday categorisations of social and occupational

1. Among the few examples, the studies by Yannick Lemel (2003) discuss the correspondence between the PCS and the prestige allotted to occupations.

2. There is an older American tradition identifiable in the 1960s work based on a method known as *vignette analysis* (Rossi 1979). It seems however that the most recent publications we have cited here were not inspired by it.

space, first in their shared dimensions and then from the perspective of the typical variations between individuals, to turn finally to a conclusion on the contributions of our work.

Investigating everyday categorisations of social space

The quantitative study of the subjective relationship to social stratification

The most traditional way of questioning everyday categorisations of social space is to study the subjective relationship of individuals to the divisions of the social world. This examination is part of the work on social stratification, whether it uses "classist" or simply "stratificationist" approaches. For the former, this subjective relationship is questioned through the prism of the class identity of individuals, as measured by opinion surveys that ask respondents to assess for themselves whether or not they feel they belong to a social class. It is a question of identifying the socio-economic determinants and context effects that explain the intensity and the evolution of this "feeling" of belonging but also its predictive value in terms of participation and political orientation or even lifestyle (Michelat and Simont 1971, 2004; Vanneman and Weber Cannon 1987; Evans and Kelley 1995, 2004; Amossé and Chardon 2006; Hout 2008; Deauvieau and Dumoulin 2009; Pelage and Poullaouec 2009). This "feeling" is conceptualised as an indicator of class consciousness or rather class identity, presented as a central element of the definition of social class.

The stratificationist approaches also use the opinion survey method but with a different purpose: to assess the level of consensus within and across Western societies as to the assessment of occupational hierarchies. These are most often understood in terms of the prestige or the social status associated with occupations (Goldthorpe and Hope 1974; Treiman 1977; Lemel 1991, 2003; Chambaz *et al*. 1998). In this context, it is the consistency of representations relating to occupational hierarchies that is assessed, usually by asking respondents to appraise (using for example scores, rankings, classifications, etc.,) a list of occupations. These surveys lead in general to the production of a "ladder" of occupational prestige that may constitute an independent variable in the same way as income or academic qualification.

These two types of investigation are used to test the link between objective criteria of social positioning (parental occupations, respondent's occupation, income, educational qualifications, etc.) and representations related to the rationales behind the division and hierarchy of individuals in society. However, these approaches suffer from several limitations. First, by focusing on the identity (class identity) or normative (prestige or social value associated with occupations) dimensions of the representation of social space, they leave out the cognitive dimensions of these representations, in other words the detailed knowledge and firsthand experience of individuals in the occupational world. In addition, the use of a single criterion of measurement (sense of belonging, prestige) does not suggest the complexity of these representations. However, several studies have shown that individuals can cross-cut, combine and link different dimensions or information to describe social space (Coxon, *et al*. 1979, 1986). Therefore, these studies do not make it possible to describe the categorisations that individuals use to understand all of the social space or

to assess whether the respondents themselves are able—and if so, in what form—to formulate a personal classification of social space.

Pioneering surveys on everyday categorisations of the social world

An alternative approach is to interrogate directly the everyday categorisations of the social world. The activity of categorisation is central to the social construction of reality (Hacking 2008). By delimiting a question, an object, making this reality exist in a particular form, social categorisation is performative. In this sense, to categorise is always both to speak about and act on the world (Demazière 2003). The work of categorisation draws on several sources. Some categorisations are hardened into laws, and often have immediate consequences: the fact that for a French employee to have his or her occupation classified as part of a collective agreement determines in part his or her working conditions, remuneration and career. Others, while not being official, have a public life however, are relatively stable and circulate within social space. Here one thinks first of all of scientific, academic or political categorisations of the social world, based on paradigms, of which some will eventually prevail over the long term. Finally, in connection with these first two contexts, the categorisation activity also relates to an individual activity: each person categorises the world around them.

In this context, the categorisation of socio-occupational space has a central position, since it fundamentally affects how a society, and thus its members, represent themselves. What are the divisions considered relevant in a society at a given moment? What are the socio-occupational groups that make up our society? These are questions whose answers come at least in part from the work of categorising socio-occupational space.

Several pioneering investigations, such as those developed by Anthony Coxon in Edinburgh and the Swiss sociologists Dominique Joye and Fabio Lorenzi-Cioldi, have sought to explore these everyday categorisations of socio-occupational space. These researchers have used different methods of investigation—combining occupations in pairs or in groups (*clustering procedure*), positioning of occupations in a two-dimensional space—but they have a common starting point in a critique of the sociology of social stratification based on occupational prestige scales, that are supposedly one-dimensional and universally consensual. The contribution of this work is that it shows that people do not order occupations by a single criterion (prestige, power, income, etc.) but that they combine and link several dimensions. Similarly, these surveys indicate that the rankings that are generated vary considerably according to the social milieux to which the respondents belong. In addition, these studies have particular methodological relevance since, although based on small samples (between 100 and 200 respondents), their results derive from a quantitative approach.

However, their focus on criticism of the prestige scales so widely used by sociologists of social mobility implies that the everyday classifications in these investigations are based only on occupational titles and not on individuals with profiles combining several social and occupational characteristics. Therefore, the combination and prioritization of different types of information (employee/self-employed status, educational level, educational qualifications, gender, age, etc.) that constitute the indices of social position are left in a blind spot. It is for this reason that we

have chosen not to use the whole extent of their survey methods, while retaining the aim of being able to describe the socio-occupational space produced by respondents within a quantitative perspective.

We, on the other hand, relied on the experiment conducted by Boltanski and Thévenot (1983), who adopted a slightly different protocol because their respondents had to group fictitious individuals represented by personal file cards bearing a number of their social and occupational characteristics. Recourse to a "card game" has at least two major advantages. First, this protocol puts less emphasis on hierarchical classification, which is more reminiscent of the "ranking" or "scaling" form, than forms of grouping that may or may not be hierarchical. This choice is also present in the instruction that we gave to respondents: in a relatively gentle way it asks them to associate profiles with positions perceived as being "equivalent" ones in society. Then the advantage of using a "card game" goes hand in hand with that of associating each personal file card with a fictional character. As a result, practical classification rather than theoretical reasoning is encouraged. However, the protocol does not completely correspond with daily and practical experience of the social world. As Bernard Conein (1991) reminds us, respondents are placed in a situation similar to a school test, which is why those most endowed with cultural capital showed themselves to be more comfortable with the procedure.

1982–2008: Revisiting and adapting the Boltanski and Thévenot card game

Although we were inspired by the survey procedures developed by Boltanski and Thévenot, we also revisited and adapted them to our own questions and objectives. Therefore, the two protocols are not exactly comparable, as these two surveys are located in different and distinct scientific and political contexts. In the early 1980s, the nomenclature of socio-occupational categories (*catégories socioprofessionnelles*—CSP) then in use had become established as the occupational classification tool, and the reference to social class remained important. The survey conducted by Boltanski and Thévenot was part of a sociological reflection on the construction of social groups where the role of the work of political and symbolic representation stands out as the determining factor. In addition, the two sociologists set up this protocol while INSEE was in a process of "revising" the nomenclature of the CSP. It was an issue, in that context, of questioning the methods of the coding of occupations and some of their sample of 130 card-players was moreover composed of female investigators and encoders from INSEE.[3]

By the late 2000s, the legitimacy of the PCS and the recognition of socio-occupational differences were not as assured as they had once been and the debate within INSEE was focused primarily on the European socio-economic classification project. The controversy was between the champions of a nomenclature based on

3. Their sample was opportunistically constructed. However, the games were offered to respondents in continuing education: management employees in marketing, nurses, social workers, salesmen in a multinational agribusiness, participants in continuing education in communication in an IUT (Institut Universitaire de Technologie, University Instute of Technology offering two-year degree courses), the unemployed, retired teachers, and survey workers and coding staff in INSEE [Institut National de la Statistique et des Études Économiques, National Institute of Statistics and Economic Studies].

a sociological theory, namely that of the Goldthorpe class schema that, to be valid, does not necessarily need to be in "resonance" with the everyday categorisations of European citizens, and the advocates of a more realistic approach based on a bottom-up classification, identifying possible convergences between occupations at the European level and by considering that the nomenclature should be understandable to citizens. As we are engaged in this debate, we actually believe that it is necessary to study the everyday categorisations of Europeans and our study is also designed to be replicable in other countries as well as France (Deauvieau and Poullaouec 2011).

Although it is necessary, in both cases, to question the relationship between everyday categorisations and expert classification, two quite different approaches are used. In connection with the process of revision of CSP nomenclature and the training of INSEE officials, Boltanski and Thévenot focused on the process of categorisation. This decision implies an ethnographic approach, and to do this, respondents were recorded and observed in the process of classifying. To explain their classification rationale, they were placed in pairs and had to orally discuss and negotiate their re-classifications. The information provided on the cards was filled in from answers in plain language from the "Employment" survey and the occupations could be very common (teacher, doctor, etc.) but also much rarer (*laveur-graisseur* [garage-hand], *ébéniste-vernisseur* [cabinet-maker and varnisher], etc.).

Conversely, the choice of a quantitative and comparative approach between countries required a series of changes in the construction of our own card game. First, the investigation was in the form of an individual questionnaire that had the aim of producing statistical data. Observation was more concerned with the result of classification rankings than with the process of categorisation, even though the survey includes questions on the classification principles adopted by the respondents. The selection of those surveyed was carried out by means of a representative sample of 547 respondents selected by the quota method (see Part 2). Finally, comparability and quantification required a certain degree of stylization of the game. As a result, information is provided from variables harmonized at the European level and the descriptions of occupations are very common ones. Similarly, while in the 1982 survey information was localized (home address of the fictional character, address and company name of his or her employer), it is decontextualized in the revised version.

The nature of information selected to be on the personal file cards bears the traces of the various sociological debates contemporary with the two surveys. In both cases, the occupation and the distinction between employee/self-employed are present, as well as the employer›s business, age and sex (as can be guessed from the names). However, the 2008 survey includes information relating to the employment contract (CDI—*contrat à durée indéterminée* or permanent contract/CDD—*contrat à durée déterminée* or fixed-term contract/Temporary/public service) and the fact of being in charge of other employees or otherwise (see next section). This decision provides a link with the issues of job security and supervision[4] which were either not or barely represented in 1982. However, the first survey included more information about the "*qualification*" [job-description] of employees, a criterion that structured the recasting of the CSP, while the 2008 version makes no explicit reference

4. To code using the prototype ESeC, it is necessary to have two additional items of information in addition to occupation: whether it involves managing a team and the number of subordinates.

to job-description, as it is very difficult to find equivalents for this notion in other national contexts.[5]

Quantifying everyday categorisations of socio-occupational space

Both surveys are therefore based on a constructivist approach since our aim is to begin from the everyday knowledge of respondents in order to analyse the forms of identification in social space and not nomenclatures predetermined by researchers. However, considering our objective of quantifying the results and being able to compare them in several national contexts, we standardised the information provided on the cards, as we could then avoid "raw" material which would have been closer to the lived reality of the respondents.

These distinctions in the construction of survey protocols also refer to ways of conceiving and analysing the link between formal classifications and everyday categorisations. In their article, Boltanski and Thévenot provide little in the way of development of the rankings that were produced. They make clear, without using many examples, that they are produced by the chain association "*maraboutdeficelle*" method characteristic of a "prototypical" logic of categorisation (Rosch 1973). For example, respondents will put a secondary school teacher with a university degree together in a group with a primary school teacher and then add a scientist and a tax inspector to make up a class of "Executives in Public Service." They insist, as do the authors mentioned above, on the multidimensionality of the classifications thus produced. Above all, they consider that the everyday rankings have a practical relationship with the social world and that they are not related to the characteristics and inclinations of the respondents: "[T]his suggests that categories are not constituted *a priori* according to some formal identity, but on the basis of chain association by contiguity [...], and that such a mode of category building is not confined to children who do not yet understand the logic on which social class is based or to adults who have little education. The reverse appears to be the case, namely that this is an instance of the working of practical logic that nevertheless does not prevent appeal to class logic of the most academically respectable kind when the experimenter explicitly demands it."[6] Convergence between everyday and institutionalised categorisations does not work for classification practices but at another level, that of the rationales behind the description and naming of social groups. Indeed, the two sociologists observed that the names given to organised groups were very close to the taxonomic vocabulary of the CSP, even though the cards set out behind the same title may be quite different, with this proximity increasing with the person's level of educational achievement.

These conclusions were based mainly on the analysis of the names given to the piles of cards, not on a specific examination of the nature of the piles of cards actually produced. In other words, of the three processes required of the

5. In an exploratory phase, we tested a card game including the mention of income, unlike the 1982 survey. The only item of data to appear in digital format, a significant proportion of the respondents then used it exclusively for building classes of income, regardless of other information written on the card. We have not retained it in the final version of the game as our goal remains to work on socio-occupational categorisations.

6. See Boltanski and Thévenot (1983: 638).

respondents—collecting cards in piles, naming these piles and finally choosing the most representative card—the first process has not been investigated in detail. However, only a review of the classifications being produced would make it possible to understand the classification rationales used by the respondents, whether it is by chain-association or based on a stronger, criterion-based logic. That is why we wished to focus here on the study of classifications, setting aside for a moment the analysis of the links between rationales of classification and the naming rationales the will be the subject of the next study. This analysis of classifications is conducted in three stages: first identifying the common elements of categorisations, then the identification of typical variations among individuals, and finally the examination of the links between types of categorisations of socio-occupational space and the characteristics of the respondents.

Form of empirical survey

Before discussing the actual analysis of the results of the card game, we will describe the characteristics of the survey and general approach to statistical analysis of the classifications produced by the respondents.

A card game survey

The main part of the "Décrire la société" [How to describe society] survey conducted in 2008–2009 used a questionnaire and a set of 33 cards.

Instructions

The questionnaire consists of four instructions and then a series of three questions designed to make clear to respondents some of the reasons for their classification. The four guidelines are:

1) Taking into account the information on the cards and your knowledge of occupations, the game is to put together people who you think have equivalent positions in society. The number of groups should be less than or equal to 10 and you can put any number of information sheets you want in each group. The time to complete the first part of the game is about 40 minutes. You will see on the following chart the number of information sheets contained in each of your piles. Each column corresponds to one pile.
2) Circle the number of the information sheet that, in each group, seems to you to be the most representative.
3) For each of your groups, choose a name.
4) If you can, put yourself in one of the groups that you have made by putting a big cross in the appropriate column.

The cards

The game consists of 33 cards (Appendix 1, Table A1), almost twice as many cards as those used in the Boltanski and Thévenot experiment. The individual profiles on the cards are designed to represent the structure of European occupations

within the limit of 33 cards. The cards in the game represent "real people" who were randomly selected from the "European Working Conditions Survey" (EWCS) of 2005. The occupational groups are represented by the "Frenchified" terms that were most frequently used in the French "Emploi" [Employment] survey. The cards contain a number, a pseudonym that can be used to deduce the sex of the person, their age and six socio-occupational characteristics: their occupation, employment status (whether employer, self-employed, on long-term contract [CDI], on fixed term contract [CDD], in temporary employment, civil servant), whether responsible for a team of employees and where applicable the number of subordinates, company size for self-employed, the business of the employing establishment, and their educational qualifications.

Sample

The sample consists of 547 individuals in employment, aged 18 or over, residing in mainland France (but not including those in religious or residential communities, barracks, etc). If the sample obtained by the quota method is not perfectly representative of the working population, with an over-representation of middle management, employees, youth, and university graduates compared to the total employed workforce, it has however enough social diversity to avoid the risk of causing systematic bias in the results (Appendix 2, Table A2).

Administration of the game

The game was administered by sociology and political science students from several universities.[7] In the first stage, the university teacher-researchers who were partners in the survey gave the survey to their students. They trained them as part of their teaching in this particular type of research study and students were given detailed instructions on how to organise their visits. During the second stage, they administered two or three questionnaires to individuals belonging to specific social groups, in line with the quotas used to define the sample, and their teachers then checked that the individuals selected corresponded to the requested profile. The interview was usually held at the home of respondents and lasted between an hour and an hour and three quarters. The survey had two components: 1) participation in the card game and 2) the response to a self-administered paper questionnaire on their understanding of the ESeC prototype. Respondents initially completed component 1 and then the investigator gave them component 2 in order to ensure that the information provided on ESeC classification did not influence their responses to the card game.

Overall, the survey technique was well received. Only one interruption during play was reported (one respondent began to play the card game and, finding it too difficult, handed back the questionnaire). The survey reports written by student-interviewers and teacher-researchers who also conducted surveys show that the card game was enjoyed. Respondents were generally very involved—carefully arranging the cards in front of them, reflecting at length and re-ordering the piles several

7. Interviewers/students came from the Universities of Amiens, Limoges, Nantes, Nanterre and Versailles-Saint-Quentin-en-Yvelines, the Instituts d'Études Politiques (Institutes of Political Studies—IEP) in Paris and Toulouse.

times—and concentrated (silence, fatigue expressed at the end of the game). The profiles on the cards raised few questions or surprises. However, three cards "surprised" respondents or led to humorous remarks, and even questions to the interviewers. The card for the teacher on a permanent contract [CDI] (in a private school) raised questions about the possibility of teaching without being a civil servant. The card for the security guard with a bac + 4 (Masters degree) raised a lot of comments about the dissonance between the occupation which was considered to be low-skilled and the high educational level of its holder. As the name associated with that profile was "Kamel," many respondents pointed out that this card clearly illustrated the discrimination in the labour market suffered by young people of North African origin. Finally, many respondents questioned the investigators about the type of work associated with the card of the "fork-lift truck operator." Moreover we observed that a significant number of participants isolated this card, giving it a pile to itself.

The card pair at the heart of the statistical analysis

The empirical material that was gathered and analysed thus consists of classifications of 33 cards made by each of our 547 respondents. This result can be seen from a statistical point of view at three levels: the classification itself, that of the pack of cards, and finally of the card pair (Penissat and Jayet 2009). The classification indicates the set of piles made by an individual. The card pair corresponds to the basic level of classification. The game consists of 528 possible card pairs (a two by two crossing of the 33 cards), which were either "taken" by respondents when both cards in the pair were in the same pile, or "not taken" by respondents when both cards in the pair belong to two different piles.

Respondents had the option of making billions of possible classifications. This extreme potential diversity did not prevent the appearance of some identical classifications: six identical classifications were made by two respondents and five by more than two respondents. A total of 37 respondents (out of 547) made a common ranking with at least one other respondent. Those who have made the same classification are actually the ones that could be said to have not "played the game": they have strictly applied a criterion (employment status and employment contract, educational achievement, and age) to classify the cards. By adopting a systematic and coherent vision of the social world—which can also be likened to a refusal by some people to take part in the game—they differ however from the overwhelming majority of respondents who produced a particular ranking (510 out of 547 people).

This heterogeneity is also found at the pile level, albeit in a more attenuated form. On average, respondents made up classifications of seven piles, and half of them produced between six and nine. A total of 1,712 different piles were made, of which 1,395 (81%) are unique to just one respondent, and only eight are found among more than 10% of respondents. In general terms this first result supports the qualitative observations of Boltanski and Thévenot that we ourselves could make during the administration of the game: respondents identify cards they recognize and position them in social space, and then build groups around these cards by assimilation and by trial and error, and this method of playing produces the high variability in the classifications that were completed.

These first two levels of observation do not really allow us to study rationales of classification from a statistical point of view. Indeed, the difference of one card in

the classifications of two people is recorded from a statistical point of view as two different classifications, when in reality they are very close. Similarly, only one card difference between two different packages made by two individuals lead to us to consider them as distinct although they are also very close in reality. This is why it is relevant to observe the results of the game at the level of card pairs.

Two complementary principles of analysis are thus possible. Firstly, it is possible to study the proximity between two individual respondents by comparing their choices on the 528 card pairs and by counting the number of card pairs they have in common. But the analysis of pairs also makes it possible to observe the similarities not just between the surveyed individuals but between the cards themselves. The more that a card pair has been adopted by a large number of respondents, the greater the chance that the two cards will be perceived on average to be close. Thus, 81% of respondents took the pair consisting of the "nurse" card and the "auxiliary nurse" card, and thus put them in the same pile, which shows that these two cards were considered to have a certain social similarity. However, only six respondents (less than 1%) took the card pair representing a teacher and a forklift truck operator, which supports the conclusion that these two socio-occupational universes are perceived as very distant. The statistical material that was analysed is thus made up, for each of the 547 individuals, from the 528 dichotomous variables representing all card pairs and indicating those that have been "taken"—put in the same pile—or not taken by each of the respondents.

Examination of the card pairs shows that some card associations are significantly more often produced than the average (Appendix 3, Table A5), i.e. some card profiles are considered close, while others are almost nonexistent. The simultaneous study of all card pairs draws up the space of closeness and distance between the 33 cards such that it can be built from the observation of associated card pairs by all respondents. This examination makes it possible to reconstruct analytically the common elements of the categorisation of socio-occupational space, which can now be made clear.

Shared dimensions of classifications

The high inter-individual variations as to the classifications produced do not preclude some similarity between respondents. This proximity between the actual classifications, measured by means of an ad hoc index is real but its scale is relative (Appendix 4). In other words, individuals share some evaluations of the categorisation of socio-occupational space without completely sharing the same vision of them. We thus need to determine what organises these shared assessments, identifying the most frequent occurrences in the card pairs chosen by respondents. This is carried out by the construction of an average classification, made from the mean distances between the cards; the closer the cards are, the more likely they are to be in the same pile. This classification is complemented by a multivariate analysis of the distances between the cards that makes it possible to reconstruct the space of the similarities between cards (Box 1 and Appendix 5).[8]

8. For a summary presentation of statistical analysis methods for experiments that relate to card games, see Faye *et al*. (2011).

Box 1. *How to analyse the rationales of classification of socio-occupational space: calculation of the distances between cards*

How can we analyse the shared dimensions of the laypersons' categorisation of socio-occupational space? In practical terms, the objective is to flatten the 547 rankings and look for commonalities among them. This is impossible to achieve "manually." Hence we use a procedure based on the notion of distance between cards constructed from the chosen card pairs. The general principle is simple: two cards are considered especially close to each other because they were in the same pile, and vice versa. Respondents are assumed to be units of length. The greater the number of respondents who chose to put two cards in the same pile, the more we will be entitled to consider that these two cards are on average close to one another. By using this device, all individuals surveyed are taken into account, and all classifications participate in the examination of this categorisation that can be considered "average" in the sense that it is constructed from the mean of the distances between all cards, deduced from the responses of all respondents. The final statistical material consists of a matrix crossing the 33 cards amongst themselves and indicating the distance between the cards taken in pairs. The analysis of this matrix makes it possible to understand the nature and content of the shared dimensions of the categorisation (Appendix 5).

Two statistical analysis procedures are being used here. The first is an ascending hierarchical clustering performed directly on the matrix of distances between cards on the basis of the Ward criterion. This technique gathers together the closest cards, then repeats this operation between the card groups thus formed until all the cards have been combined. One then obtains a classification tree giving an image of the distances between the cards. We choose to "cut" the tree at a given level, thus corresponding to the number of decks of cards, and the result is a ranking of the cards based on their respective distances, which corresponds in some way with the "average" classification constructed from the 547 rankings produced.

We also performed a multidimensional scaling analysis on this distance matrix. This operation is complementary to the previous one and close in principle to a principal component analysis, and involves projecting the cards on axes constructed from the distances between all the cards taken side by side. This graphical representation makes it possible to identify the strongest opposition between individual cards or card groups. In order to view the complementarity between the two approaches, the cards projected in the multidimensional scaling analysis are identified by the pile to which they belong in the "mean" classification derived from the classification (of course, the two statistical processes are independent of each other). Both statistical analysis procedures are detailed in Appendix 5.

The self-employed/employee split

Occupation and the distinction between the self-employed and employees are the first shared characteristics of the classifications that are produced. This is a logical conclusion, since respondents have most information on the socio-occupational world. However, let us not forget that the cards also bore information about level of education, sex, age and type of employment contract for employees.

The split between the self-employed and employees is clearly identifiable in the mean classification (Table 1) All the self-employed cards belong in the same pile, indicating that these cards are generally regarded as close to each other. Similarly, the space of the relative positions of all the cards, made up from the multidimensional scaling analysis shows that all the self-employed cards are grouped in the same area of the plane of axes 1 and 2, thus again suggesting their proximity (Figure 1). The split between employees and self-employed, which stabilised with the advent of the

TABLE 1. ***Mean rationale of classification***

	Card no.	PCS code	Christian name	Occupation	Sex	Age (*years*)	Employment Status	Educational qualifications	No. of employees (*organisation*)	Supervision (*manager*)	Business (*organisation*)
Pile 1	1	34	Aurélie	Pharmacist	F	26	Employee (CDI)	Bac + 6	—	None	Pharmacy
	3	38	Jérôme	Engineer	H	48	Employee (CDI)	Bac + 5	—	None	Electricity production
	17	43	Hélène	Assistant pharmacist	F	25	Employee (CDI)	Bac techno	—	None	Pharmacy
Pile 2	2	43	Catherine	Nurse	F	44	Civil servant	Bac + 2	—	None	Secondary school
	7	34	Georges	Teacher	H	50	Civil servant	Bac	—	None	Secondary school
	13	52	Maria	Auxiliary Nurse	F	38	Civil servant	Bac + 2	—	None	Hospital
	24	42	Cécile	Primary school teacher	F	28	Employee (CDI)	Bac + 3	—	None	Primary school
Pile 3	4	55	Monique	Saleswoman	F	21	Employee (CDI)	Bac pro	—	3 people	Furniture sales
	20	37	Nicolas	Sales manager	H	34	Employee (CDI)	Bac + 2	—	3 people	Wholesale trade
	33	37	Pierre	Technical director	H	36	Employee (CDI)	Bac pro	—	10 people	Telecommunications
Pile 4	5	21	Cyril	Builder	H	33	Self-employed	None	None	-	Building work
	12	22	Noëlle	Shopkeeper	F	51	Self-employed	Bac	None	-	Clothing retail
	23	13	Michel	Farmer	H	51	Self-employed	None	None	-	Mixed farming
	25	22	Jean-Claude	Company director	H	46	Employer	CAP	3	3 people	Agricultural equipment sales
	29	13	Françoise	Farmer	F	60	Employer	Bac + 2	6	6 people	Market gardening

TABLE 1. ***Continued***

	Card no.	PCS code	Christian name	Occupation	Sex	Age (*years*)	Employment Status	Educational qualifications	No. of employees (*organisation*)	Supervision (*manager*)	Business (*organisation*)
Pile 5	6	56	Caroline	Waitress	F	45	Employee (CDI)	BEP	—	None	Restaurant
	10	53	Kamel	Security guard	H	23	Employee (CDI)	Bac + 4	—	None	Security firm
	11	56	Angélique	Cleaner	F	50	Employee (CDD)	CEP	—	None	Cleaning and maintenance
	16	63	Corinne	Seamstress	F	50	Employee (CDI)	None	—	None	Clothing manufacture
	18	55	Sabine	Self-service assistant	F	34	Employee (CDI)	None	—	None	Boulangerie-pâtisserie
	21	65	José	Fork-lift driver	H	33	Temporary	None	—	None	Tyre manufacture
	28	64	Christophe	Delivery driver	H	30	Employee (CDI)	CAP	—	None	Food manufacture
	31	65	Guy	Warehouseman	H	51	Employee (CDI)	CAP	—	None	Car sales
	32	67	Régis	Refuse-collector/road cleaner	H	57	Civil servant	None	—	None	Local administration
Pile 6	8	63	Reda	Builder	H	23	Employee (CDI)	Bac pro	—	None	Housebuilding
	14	63	Anthony	Car mechanic	H	36	Employee (CDI)	BEP	—	None	Car repair
	15	47	Wayne	Service technician	H	34	Employee (CDI)	Bac pro	—	None	Car manufacture
	19	63	Franck	Plumber–central heating installer	H	40	Employee (CDI)	BEP	—	2 people	Plumbing installation
	30	63	Sébastien	Chef	H	41	Employee (CDI)	CAP	—	7 people	Catering
Pile 7	9	46	Mickaël	Salesman	H	40	Employee (CDI)	School certificate	—	None	International transport
	22	54	Maryse	Secretary	F	33	Employee (CDI)	School certificate	—	None	Estate agency
	26	54	Lynda	Office worker	F	49	Employee (CDI)	CEP	—	None	Builders
	27	46	Marie-Françoise	Management assistant	F	59	Employee (CDI)	School certificate	—	None	Pharmaceutical manufacture

Field: All respondents (N = 547).
Interpretation: The classification of the cards in different piles is obtained from a hierarchical cluster analysis performed on the matrix of distances between the 33 cards. The more that individuals have put together two given cards, the greater the probability that they belong in the same pile in the mean classification increases.
Source: "Décrire la société" [*How to describe society*] Survey, 2008.

wage-earning society in the mid-twentieth century, therefore continues to structure everyday identification in social space.

Hierarchical ordering of employees

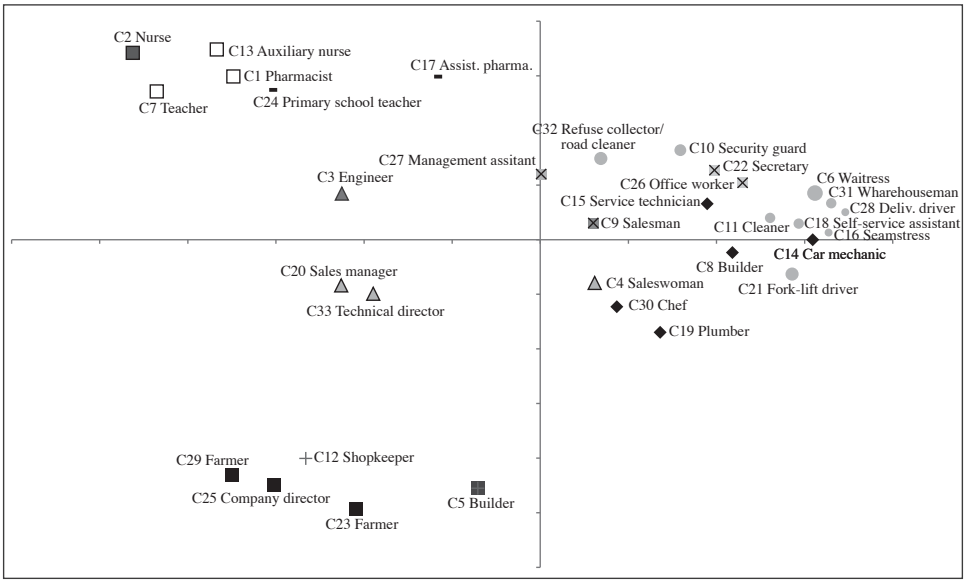
Once the distinction between the self-employed and employees has been identified, differentiations within the group of employees still remain. The hierarchical logic prevails even if it is not strictly observed. If we except pile 2, managers were associated with intermediate occupations, intermediate occupations with skilled workers and/or employees, general workers with low-skilled employees. These distinctions obviously do not, strictly speaking, correspond to the rationale of the PCS classification, but may be closer to the hierarchy of jobs that derive from collective agreements (managers/ETAM—*employée, technicien et agent de maitrise* [employees, technicians and supervisors]/employees and general workers) and the general status of the civil service (categories A, B and C). Thus, the higher occupations in the hierarchy of jobs are identified by two piles, one involving scientific and intellectual professions (engineer, pharmacist and the female assistant pharmacist), the other featuring the supervisors and managers (technical director and the head of sales), plus the saleswoman who has the distinction of supervising three employees. In contrast, pile 5, the largest, is a combination of the occupations of employees and low-skilled workers, in other words of low-level, low-skilled occupations (*professions d'exécution*). Between these two poles, pile 6 brings together relatively skilled technical occupations (of qualified technician worker) and pile 7 contains intermediate occupations in the services sector (from office worker to salesperson). This pile brings together occupations whose common ground is that they take place in the "office." One group is more dissonant as it brings together civil servants or their associates (school teacher on long-term contract) by combining them with a manager, two intermediate occupations and an employee (auxiliary nurse, [*aide-soignante*]). Attachment to the public sector and to the health and education profession here seems sufficient to homogenize a hierarchically differentiated group and distinguish it from other occupations.

The structure described above, namely the division employees/self-employed and the hierarchical ordering of occupations, is confirmed in large part by examining the different axes from the multidimensional positioning analysis (Figures 1 and 2). In general, the main division (line 1) is established according to an opposition between the intermediate employed and low-level, low-skilled occupations found on the eastern side of the graph (thus the card-piles 5, 6 and 7) and the west side of salaried supervisory and higher public- and private-sector occupations (piles 1 and 2) as well as the self-employed/employers (pile 4). It comes down to a differentiation between those profiles strongly provided with economic and cultural capital relative to the profiles with significantly less capital. The position of assistant manager in the middle of the first axis illustrates this logic of opposition. Similarly, the position of the card representing a managerial saleswoman is illuminating because it is different from that observed in the average classification. Indeed, if it does indeed denote a managerial position, it is also a much lower-skilled occupation than the other managerial occupations. This card can be found here on the east side of the first axis, with the intermediary and low-level, low-skilled occupations, and not with the other cards of the higher qualified managers.

Secondly, those profiles most strongly provided with capital (in the west on the first axis) are differentiated on the second: employees of the public sector, the northernmost of Figure 1, are found opposite to the self-employed and employers to the south. Alongside public sector employees, there are also employees of higher intellectual occupations. Thus, the profiles relatively better endowed with cultural capital are differentiated from those with relatively more economic capital. The intermediate position of the technical director and the sales manager—between the pole of the intellectual professions and the pole of the self-employed—reinforces this interpretation.

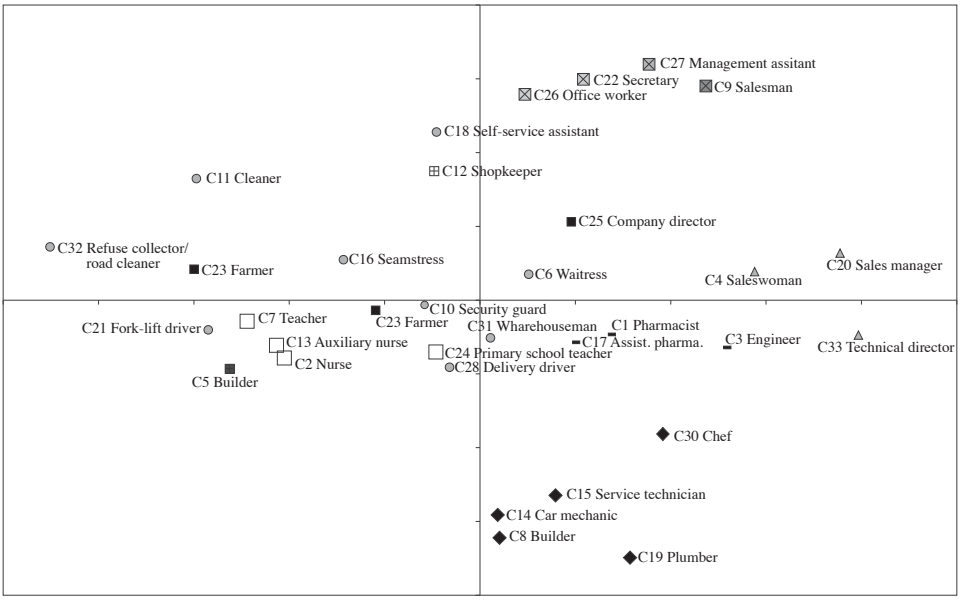
The presence of the auxiliary nurse in the card group located to the northwest of Chart 1 reveals, as we have mentioned, a dissonance in our interpretation of the rationales of classification. In fact, it is particularly useful in order to understand the combinations between rationales of classification. We can consider, first, that the auxiliary nurse is associated with these cards because she belongs to the public sector (civil servant) and is working in the health sector (as do the nurse, pharmacist, and assistant pharmacist). One can therefore assess the importance of the public/private divide for locating oneself in social space but also of the health sector, perceived as a world unto itself. In addition, this auxiliary nurse is a tertiary education graduate in our survey. She therefore has a higher level qualification which probably, for respondents, offsets the low skill level of her job. The combination of these three characteristics then explains this average positioning. Indeed, in contrast, the

FIGURE 1. ***The space of the distances between the cards (axes 1 and 2)***



Field: All respondents (N = 547).
Interpretation: This graph is constructed from axes 1 and 2 of the multidimensional scaling analysis performed on the matrix of distances between the 33 cards. The lower the distance between two cards, the closer they are on the graph.
Source: "Décrire la société" survey, 2008.

Figure 2. ***The space of the distances between the cards (axes 3 and 4)***



Field: All respondents (N = 547).
Interpretation: This graph is constructed from axes 3 and 4 of the multidimensional scaling analysis performed on the matrix of distances between the 33 cards. The lower the distance between two cards, the closer they are on the graph.
Source: "Décrire la société" survey, 2008.

refuse-collector/road cleaner, a civil servant without educational qualifications, is most often associated with the low-level/low-skilled occupations in the eastern part of the graph, as is the security guard, despite being educationally well-qualified.

The two main rationales of classification therefore correspond to an opposition between the top and bottom of the social hierarchy and make it possible for us to identify three poles: low-level/low-skilled occupations; the self-employed and employers; and a group of intellectual occupations, the majority of which are in the public sector.

Multidimensional classifications

The distances between the cards representing employees are structurally ordered in a hierarchy that runs from the higher intellectual and managerial occupations to the low-level/low-skilled occupations, via intermediate service and technical occupations. This dominant hierarchical rationale, however, is combined with other classification rationales. Firstly it is associated with occupational work in the broad sense of the term, which is also present on average in the classifications that are made. As was shown in relation to the cards associated with the northwest of the multidimensional scaling analysis which, in addition to being the intellectual and/or highly educated occupations, are in the fields of education and health. This type of

combination is still visible in the distinction between the 'technical' skills (of skilled workers or intermediate occupations of pile 6) and office occupations (employees or intermediate occupations of pile 7 working essentially in the service sector) that structures the fourth axis. This combination of a rationale of hierarchical ordering of salaried employment and a rationale of skills works for senior and middle groups but disappears at the lower end of the social hierarchy. Pile 5, which brings together the least skilled occupations, consists of worker occupations (shopkeeper, refuse-collector/road cleaner) and employees (waitress, cleaner). At the lowest level of qualification, the classic distinction in France between workers and employees thus seems to completely fade away. This result echoes the work which, in France, highlighted the dominance of the qualified/unqualified dichotomy over that between workers and employees (Amossé and Chardon 2006).

In a secondary way the question of the nature of the employment contract and/or employment status is also used to structure the average space. One notes in particular that permanent employees are distinguished from other cards (civil servants, self-employed, those with insecure jobs). The demonstration in the multidimensional scaling analysis (axis 3) of this dividing line is largely related to the fact, as we shall see, that a small number of respondents have used the type of work contract and employment status in a strict manner as classification criteria. Again, this distinctive rationale combines imperfectly with an opposition between the highest occupations in the hierarchy of employees (the managers and the engineer who all have permanent contracts) and those whose occupational image is attached to heavy manual work (the refuse-collector/road cleaner, the cleaner, the fork-lift truck operator, the farmer, the auxiliary nurse).

Educational qualification was also used in the classifications. This feature, however, is used more as an attribute reinforcing the scale of the job qualification. Being a university graduate will thus reinforce the classification of a managerial occupation in the pile of higher paid occupations. Equally, the absence of a degree is a criterion that, added to the fact of being employed in a low-skilled job, means the card will be classified in the pile of low-level/low-skilled occupations. What happens in dissonant cases, such as that of the technical director of a factory supervising ten people and who "only" holds a vocational *baccalauréat* (and who is also young) or, conversely, the very well-qualified security guard (bac + 4—equivalent to a master's degree)? The first is most often placed with the higher paid occupations and the second with low-level/low-skilled occupations. In one case as in the other, on average, these cards are classed according to the evaluation of jobs and not according to the person's level of educational qualifications.

The sex of the individual, inferred from their first name, is clearly not or only very little used as a criterion of classification. For example, the woman farmer—a dissonant case with respect to the dominant representations attached to this occupation—was ranked with other self-employed occupations, and especially with another farmer, rather than with other women. This does not imply the absence of a gendered vision of the world of work, identifying female occupations as those of employees or caring occupations. The card game does not really allow, quite intentionally, the expression of this type of categorisation, which would have required a particular methodology. At most we can say that sex—like age—has not been used at the overall level as a main criterion of the partition of social space.

In the end, although a strict comparison with the PCS would be irrelevant since respondents have built their classification according to practices that have little to

do with those of INSEE statisticians, the everyday rationales of classification are not so far away from those of the institutionalised classification. The importance of the division between employees/self-employed/employers, the recognition of a hierarchy of employees, the public/private distinction or even the differentiation of certain areas of work, which is found at level 2 of the PCS, function here as bases from which to locate oneself in the social world. Although the taxonomic vocabulary of the PCS has spread in society and been able to become internalised when it comes to "talking about" the social world, one can also argue that the rationales underlying this taxonomy, which are largely those of collective agreements and the status of public service, are also recognised and internalised by individuals. Let us not forget, however, that the overall similarity between the rankings of all respondents is relative. It is now appropriate to question the inter-individual variations on this general scheme.

Four typical rationales of classification

The forms of categorisations made by individuals can fully maintain very different relations to the everyday rationales of categorisation. These categorisations may be represented as mere variations on the general principles described above or otherwise be in the form of several typical rationales, of which some are very distant from the everyday characteristics that are brought to light. Exploring the differences between individuals helps to better understand what makes up this average rationale of categorisation and thus put it into perspective. Four major typical rationales of categorisation are thus detectable (Box 2). Two of them each cover about 40% of the respondents (rationales 1 and 2), and the other two, less frequent, each encompass about 10% of respondents (rationales 3 and 4).

Box 2. *A typology of individuals based on card pairs*

This exploration of individual differences from the perspective of rationales of categorisation is based on an examination of the distances between respondents. Two individuals who have taken exactly the same pairs have the same classification and are therefore considered to be as close as possible. The more two individuals surveyed differ from the point of view of the number of pairs created, the more they are considered to be distant. Distances are calculated between all individuals taken in pairs, and then a hierarchical clustering is performed to group individuals according to their degree of proximity. This operation is performed twice: a first stage in order to stabilize a first partition level, and a second stage within the groups thus obtained in order to measure the diversity of the first internal partition level.

Five groups of individuals are thus identifiable at the first level of the partition. An exploration of distances between the cards is carried out on each of the groups obtained—on the model described above in Box 1—in order to separate the rationales of categorisation of each group. Since two groups identified in the classification can be assimilated to the same rationale of categorisation, four typical rationales can be identified: those of the hierarchy of employees (rationale 1), of occupational work (rationale 2), educational qualification (rationale 3) and employment contract (rationale 4). The statistical processes performed to obtain these results are detailed in Appendix 6.

Criterion classifications and prototypical classifications

The main contrast between these four rationales of categorisation concerns their very nature. The first two (rationales 1 and 2), the most frequently used, are composites, while the second two (rationales 3 and 4) result from the fairly strict application of information present on the cards as classification criteria. Predictably, respondents who have implemented the two strict rationales are on average much closer to each other from the perspective of the classifications employed than those individuals who have used composite rationales.[9]

Rationale 3 (11% of respondents) is based on educational qualification as a criterion of classification. This is a hierarchical rationale, where the content of the classification essentially varies according to the degree of aggregation of levels of educational qualification. A first approach consisted of respondents grouping together all those with university degrees, those with various types of *baccalauréat*, those with qualifications below the *baccalauréat* and those without any qualifications. A second typical way of classifying is based on creating more precise groups, distinguishing, for example, graduates with higher education superior or equal to bac + 3, from bac + 2, and the general *baccalauréat*, vocational *baccalauréats*, the CAPs and BEPs [CAP, *certificat d'aptitude professionnelle*, vocational training certificate taken at secondary school; BEP, *brevet d'études professionelle*, school leaving diploma taken at about 18), and the non-qualified.

Rationale 4 (13%) is based on the type of employment contract and employment status. Two sub-rationales can be identified. The first is to stick strictly to the status and work contracts and to distinguish between the self-employed, those holding a permanent contract (CDI), those with a fixed term contract (CDD) or a temporary contract, and civil servants. The second uses the same divisions but adds a distinction between those with a permanent contract who supervise others and those who do not.[10] Because they have used the strict criteria of categorisation present on the cards, these two sub-rationales can be identified with the naked eye in the classifications of respondents since they are the only ones to have been made by several people. Thus, classification by type of employment contract, the most common form, was used by twelve respondents, whereas classification according to the type of employment contract and then whether or not the person supervises other employees, was used by four respondents.

In cognitive psychology since the 1970s, researchers have frequently distinguished two classical categorisation rationales: one based on the systematic variation of criteria (which corresponds to a rather scientific or expert categorisation) and the other based on a comparison between the object in question and the "prototypes" intended to represent a category (Rosch 1973). From their investigation, Boltanski and Thévenot concluded that, when it comes to identifying oneself in social space,

9. The percentage of maximum proximity (*pourcentage de proximité maximum*—PPM), measuring the proximity between individuals in terms of the classifications generated, is thus nearly 50% for rationale 4, 30% for rationale 3, and only 18% and 20 % for rationales 1 and 2, the latter two rates being very close to the average PPM (see Appendix 3 for details of the construction of this indicator).

10. It was this last characteristic that led the ascending hierarchical classification to distinguish between these two groups and to place the second relatively close to the hierarchical rationale (rationale 1), because one finds in it both the distinction between employers/employees and a principle of hierarchy of employees according to the criterion of management.

respondents use the second rationale. To some degree we also show here that a minority of respondents (20%) adopted a criterion-based rationale. Does this mean that they have not "played the game"? It is difficult to decide unequivocally on this question: obviously some respondents chose to answer the survey by automatically declining to use a simple criterion allowing them to reduce the length of the interrogation; others, however, seemed to think that the degree or nature of the employment contract were crucial to seeing themselves in social space. However, more people adopted more flexible classification practices (rationales 1 and 2) that are probably closer to a rationale of assimilation and recognition of typical figures, as we will now make clear.

Two majority rationales: hierarchy of the employed or occupational work

The two other rationales (rationales 1 and 2) each cover about 40% of respondents. They resemble each other on one hand because, unlike with the others the occupation itself is the cornerstone of the classifications and, secondly, because they use several indices of social position flexibly and by combining them.

The first rationale (rationale 1: 35% of respondents) most clearly resembles the everyday rationales of categorisation (Table 2). It is based first and foremost on the distinction between the self-employed and employees. Employees occupations are then differentiated according to a hierarchical principle, based essentially on the qualification of jobs. This classification practice is sometimes supplemented, and in some cases replaced, by recourse to the educational qualifications of the individual or his or her level of responsibility. In addition, the hierarchy of employees is linked in some cases to other classification principles. Thus, the same level of qualification may be separated between, on one side, technical occupations and on the other, service occupations, thus introducing a rationale of employment sector within the same level of qualification. Similarly, civil servants tend to be lumped together, but often at a relatively consistent level of qualification (thus, the card representing the refuse-collector/road cleaner civil servant is often distinguished from other civil servants whose jobs relate more to categories A or B of public service).

The point of entry to the second typical form of categorisation (rationale 2: 41% of respondents) is occupational work (Table 3). The cards are firstly sorted by the proximity of occupations, of vocational streams, or even sometimes of the economic activity of the organisations in which they work. Two important consequences follow from this rationale of occupational work. First, the distinction between employees and the self-employed, which is so decisive at the overall level and in rationale 1, has little impact here. The self-employed builder and the employed builder will tend to be filed together under the same heading in deference to the similarities of what they do in their work. The second consequence: the minimization of the jobs hierarchy. A saleswoman and a sales manager may well be classified together in deference once more to the similarities in their work.

This second rationale admits variations around these two great principles. The distinction between "occupational work" activities can sometimes be restricted to skilled jobs, with low-skilled/low-level jobs tending to be lumped together more. This nuance tends to reintroduce the principle of the hierarchy of jobs and to make rationale 2 closer to rationale 1. The "occupational work" dimension of enterprises

TABLE 2. ***Rationale 1: Employee hierarchy***

	Card no.	PCS code	Christian name	Occupation	Sex	Age (*years*)	Employment Status	Educational qualifications	No. of employees (*organisation*)	Supervision (*manager*)	Business (*organisation*)
Pile 1	1	34	Aurélie	Pharmacist	F	26	Employee (CDI)	Bac + 6	—	None	Pharmacy
	3	38	Jérôme	Engineer	M	48	Employee (CDI)	Bac + 5	—	None	Electricity production
Pile 2	2	43	Catherine	Nurse	F	44	Civil servant	Bac + 2	—	None	Secondary school (*lycée*)
	7	34	Georges	Teacher	M	50	Civil servant	Bac	—	None	Secondary school (*collège*)
	24	42	Cécile	Primary school teacher	F	28	Employee (CDI)	Bac + 3	—	None	Primary school
	13	52	Maria	Auxiliary nurse	F	38	Civil servant	Bac + 2	—	None	Hospital
Pile 3	4	55	Monique	Saleswoman	F	21	Employee (CDI)	Bac pro	—	3 people	Furniture sales
	19	63	Franck	Plumber and heating engineer	M	40	Employee (CDI)	BEP	—	2 people	Plumbing installation
	30	63	Sébastien	Chef	M	41	Employee (CDI)	CAP	—	7 people	Catering
	20	37	Nicolas	Sales manager	M	34	Employee (CDI)	Bac + 2	—	3 people	Wholesale trade
	33	37	Pierre	Technical director	M	36	Employee (CDI)	Bac pro	—	10 people	Telecommunications
Pile 4	5	21	Cyril	Builder	M	33	Self-employed	None	None	—	Building work
	23	13	Michel	Farmer	M	51	Self-employed	None	None	—	Mixed farming
	12	22	Noëlle	Shopkeeper	F	51	Self-employed	Bac	None	—	Clothing sales
	25	22	Jean-Claude	Company director	M	46	Employer	CAP	3 employees	3 people	Agricultural machinery sales
	29	13	Françoise	Farmer	F	60	Employer	Bac + 2	6 employees	6 people	Market gardening

TABLE 2. ***Continued***

	Card no.	PCS code	Christian name	Occupation	Sex	Age (*years*)	Employment Status	Educational qualifications	No. of employees (*organisation*)	Supervision (*manager*)	Business (*organisation*)
Pile 5	6	56	Caroline	Waitress	F	45	Employee (CDI)	BEP	—	None	Restaurant
	28	64	Christophe	Delivery driver	M	30	Employee (CDI)	CAP	—	None	Food manufacturing
	31	65	Guy	Warehouseman	M	51	Employee (CDI)	CAP	—	None	Car sales
	10	53	Kamel	Security guard	M	23	Employee (CDI)	Bac + 4	—	None	Security firm
	11	56	Angélique	Cleaner	F	50	Employee (CDD)	CEP	—	None	Cleaning and maintenance
	21	65	José	Fork-lift truck operator	M	33	Temporary	None	—	None	Tyre manufacture
	16	63	Corinne	Seamstress	F	50	Employee (CDI)	None	—	None	Clothing manufacture
	18	55	Sabine	Self-service assistant	F	34	Employee (CDI)	None	—	None	Boulangerie-pâtisserie
	32	67	Régis	Refuse-collector/road cleaner	M	57	Civil servant	None	—	None	Local administration
Pile 6	8	63	Reda	Builder	M	23	Employee (CDI)	Bac pro	—	None	Housebuilding
	14	63	Anthony	Car mechanic	M	36	Employee (CDI)	BEP	—	None	Car repair
	15	47	Wayne	Service technician	M	34	Employee (CDI)	Bac pro	—	None	Car manufacture
	17	43	Hélène	Assistant pharmacist	F	25	Employee (CDI)	Bac techno	—	None	Pharmacy
Pile 7	9	46	Mickaël	Commercial	M	40	Employee (CDI)	Brevet des collèges	—	None	International transport
	27	46	Marie-Françoise	Management assistant	F	59	Employee (CDI)	Brevet des collèges	—	None	Pharmaceutical manufacture
	22	54	Maryse	Secretary	F	33	Employee (CDI)	Brevet des collèges	—	None	Estate agency
	26	54	Lynda	Office worker	F	49	Employee (CDI)	CEP	—	None	Builders

Field: All individuals using Rational 1 (N = 192).
Interpretation: The classification of the cards in different piles is obtained from a hierarchical cluster analysis performed on the matrix of distances between the 33 cards. The more that individuals have put together the two cards being considered, the greater the likelihood they will belong to the same pile in the final ranking.
Source: "Décrire la société" survey, 2008.

TABLE 3. ***Rationale 2: occupational work***

	Card no.	PCS code	Christian name	Occupation	Sex	Age (*years*)	Employment Status	Educational qualifications	No. of employees (*organisation*)	Supervision (*manager*)	Business (*organisation*)
Pile 1	1	34	Aurélie	Pharmacist	F	26	Employee (CDI)	Bac + 6	—	None	Pharmacy
	17	43	Hélène	Assistant pharmacist	F	25	Employee (CDI)	Bac techno	—	None	Pharmacy
	2	43	Catherine	Nurse	F	44	Civil servant	Bac + 2	—	None	Secondary school (*lycée*)
	13	52	Maria	Auxiliary nurse	F	38	Civil servant	Bac + 2	—	None	Hospital
Pile 2	7	34	Georges	Teacher	H	50	Civil servant	Bac	—	None	Secondary school (*collège*)
	24	42	Cécile	Primary school teacher	F	28	Employee (CDI)	Bac + 3	—	None	Primary school
Pile 3	3	38	Jérôme	Engineer	H	48	Employee (CDI)	Bac + 5	—	None	Electricity production
	33	37	Pierre	Technical director	H	36	Employee (CDI)	Bac pro	—	10 people	Telecommunications
	25	22	Jean-Claude	Company director	H	46	Employer	CAP	3 employees	3 people	Agricultural equipment sales
Pile 4	22	54	Maryse	Secretary	F	33	Employee (CDI)	Brevet des collèges	—	None	Estate agent
	26	54	Lynda	Office worker	F	49	Employee (CDI)	CEP	—	None	Building work
	27	46	Marie-Françoise	Managerial assistant	F	59	Employee (CDI)	Brevet des collèges	—	None	Pharmaceutical manufacturing
Pile 5	23	13	Michel	Farmer	H	51	Self-employed	None	None	None	Mixed farming
	29	13	Françoise	Farmer	F	60	Employer	Bac + 2	6 employees	6 people	Market gardening
Pile 6	4	55	Monique	Saleswoman	F	21	Employee (CDI)	Bac pro	—	3 people	Furniture sales
	12	22	Noëlle	Shopkeeper	F	51	Self-employed	Bac	None	None	Clothing sales
	9	46	Mickaël	Commercial	H	40	Employee (CDI)	Brevet des collèges	—	None	Transport international
	20	37	Nicolas	Sales manager	H	34	Employee (CDI)	Bac + 2	—	3 people	Wholesale trade

TABLE 2. ***Continued***

	Card no.	PCS code	Christian name	Occupation	Sex	Age (*years*)	Employment Status	Educational qualifications	No. of employees (*organisation*)	Supervision (*manager*)	Business (*organisation*)
Pile 7	5	21	Cyril	Builder	H	33	Self-employed	None	None	None	Building work
	8	63	Reda	Builder	H	23	Employee (CDI)	Bac pro	—	None	House building
	19	63	Franck	Plumber-heating engineer	H	40	Employee (CDI)	BEP	—	2 people	Plumbing installation
Pile 8	14	63	Anthony	Car mechanic	H	36	Employee (CDI)	BEP		None	Car repair
	15	47	Wayne	Service technician	H	34	Employee (CDI)	Bac pro		None	Car manufacture
	21	65	José	Fork-lift truck operator	H	33	Temporary	None		None	Tyre manufacture
	31	65	Guy	Warehouseman	H	51	Employee (CDI)	CAP		None	Car sales
	28	64	Christophe	Delivery driver	H	30	Employee (CDI)	CAP		None	Food manufacture
Pile 9	6	56	Caroline	Waitress	F	45	Employee (CDI)	BEP		None	Restaurant
	18	55	Sabine	Self-service assistant	F	34	Employee (CDI)	None		None	Boulangerie-pâtisserie
	30	63	Sébastien	Chef	H	41	Employee (CDI)	CAP		7 people	Catering
Pile 10	10	53	Kamel	Security guard	H	23	Employee (CDI)	Bac + 4		None	Security firm
	32	67	Régis	Refuse-collector/road cleaner	H	57	Civil servant	None		None	Local administration
	11	56	Angélique	Cleaner	F	50	Employee fixed term contract	CEP		None	Cleaning and maintenance
	16	63	Corinne	Seamstress	F	50	Employee (CDI)	None		None	Clothing manufacture

Field: All individuals using rationale 2 (N = 224).
Interpretation: The classification of the cards in different piles is obtained from a hierarchical cluster analysis performed on the matrix of distances between the 33 cards. The more that individuals have put together the two cards being considered, the greater the likelihood they will belong to the same pile in the final ranking increases.
Source: "Décrire la société" survey, 2008.

may be stretched so as to group individuals in highly different occupational work activities but in companies that, for example, all have a connection with housing (e.g., house building, estate agency, construction, etc.).

These two rationales make it possible to see the two typical ways of categorising socio-occupational space on the basis of occupation. The most fundamental distinction between the two rationales lies in the fact of strictly applying the criterion for distinguishing between employees and the self-employed (in the case of rationale 1), or, conversely, of not using it (in the case of rationale 2). Then each of these rationales leads to cards being sorted on the basis of the occupational work activity and/or the hierarchy of jobs, by favouring one or the other of these two dimensions.

Variations from the mean

Examination of different rationales of categorisation makes it possible ultimately to better grasp the nature of the average classification as shown above. On average among all respondents, two essential characteristics appear in the classification exercise: first, the separation of the self-employed from employees and, secondly, the ordering of employees according to a hierarchical rationale based on job evaluation. These two properties are the principle of rationale 1 of categorisation, which covers just under 40% of respondents, and which helps of course to highlight these principles at a general level. This is not sufficient however to build an average classification that is also coherent and visible. Some principles of other rationales also help to draw out the common forms of categorisation of socio-occupational space. This is primarily the case for rationale 3 (educational qualification), which produces a hierarchy of cards close to that of job evaluation, as the level of education is highly correlated on the cards to the evaluation of jobs. This is also the case of rationale 4 (the nature of the employment contract), which differentiates between the self-employed and employees and reinforces the first property of the common categorisation.

Finally, examination of the different categorisation rationales helps to confirm the importance of occupation as the driver of categorisation. Two rationales can be identified from this perspective: either the occupations are brought closer together by occupational work activity, according to a rationale based on skills; or occupations are brought closer together by evaluation according to a rationale based on a hierarchy of jobs. The evaluation rationale emerges at the level of all respondents since it is based on two minority rationales based on either educational qualifications or type of employment contract, each of which serves to strengthen the distinction between self-employed/employed and the hierarchical ordering of jobs through educational qualification. Conversely, the occupational work rationale, which covers about 40% of the respondents, seems to go backwards in comparison with the three other rationales, by not distinguishing the self-employed from employees and by reducing the hierarchical dimension of social space, which tends to make it appear relatively invisible when the mean results are observed at the level of all the classifications that were made.

Categorisation rationales and social characteristics of respondents

This division between the four categorisation rationales is relatively stable according to the characteristics of respondents (Table 4). Having a managerial job

Table 4. ***Socio-demographic determinants of categorisation rationales*** (%)

	Rationale 1 Hierarchy of employees	Rationale 2 Occupational work	Rationale 3 Educational qualifications	Rationale 4 Employment contract	Total
PCS					
Workers and employees	32	39	14	15	100
Managers and intermediate occupations	39	43	10	8	100
Educational Level					
< Bac	31	44	9	16	100
Bac	34	37	15	14	100
> Bac	39	40	11	10	100
Age					
Under 30	30	42	12	16	100
30 to 44	33	37	15	15	100
45 plus	40	43	8	9	100
All	35	41	11	13	100

Field: All respondents (N = 547).
Interpretation: 32% of workers and employees used categorisation rationale 1.
Source: "Décrire la société" survey, 2008.

does not appear to mean adopting a vision of social and occupational space that is radically different from that of a worker. This finding may be related to the limits on the construction of our sample (see above). Also, restricting ourselves to very general information on social position (social category, age, sex, level of educational qualification) may not be sufficient to appreciate the differences in viewpoints.[11] But we can also hypothesise that individuals agree more or less, whatever their social position, on the overall structure of social space. This is, moreover, what Yannick Lemel (2003: 103) showed concerning the assessment of the social value of occupations that do not vary with the social characteristics of respondents. Similarly, in their investigation, Joye and Lorenzi-Cioldi (1988) observed differences in classification by socio-occupational position and educational level—with the upper classes using the social status (in other words the prestige) associated with occupations less often than the lower classes to classify them—but these differences were very small.

Note also that in our own survey, these differences are not entirely absent since the adoption of a particular categorisation rationale varies slightly depending on the age and social status of the respondents.[12] Indeed, the rationales which strictly place educational qualification or employment contract type in order are more often used by younger people, employees and workers. Two interpretations are possible here. For the youngest respondents, it can be hypothesised that their recent entry into the

11. Anthony Coxon showed that certain combinations of occupations were related more to the occupational history of individuals than to their occupation at the time of the survey (Coxon and Jones, 1974).

12. This finding should be further developed by combining qualitative investigations and replication of the survey with a larger sample.

world of work is part of their limited experience of its hierarchies. However, it would explain the emphasis on educational qualifications, which is a resource for young employees in their access to the workplace and operates in a distinctive way between them, and also on the employment contract, which relates to their concern to stabilise their position in the labour market. Beyond the age effect, it is also possible to envisage a generation effect: older generations were more highly socialized in the rationales of social differentiation related to occupation, which would be less the case for later generations. These two factors—age and generation—are quite likely to combine, and cannot in any event be disentangled empirically in the absence of comparison over time. A second interpretation emphasizes the specific effects of the card game: the application of a criterion that was both easy to handle and to be strictly applied could have been, for some of the respondents, a way of responding to a survey they considered to be too academic and as a result too difficult. This observation indicates that the work of categorising several social dimensions can be a relatively complex task for those respondents who were less familiar with this type of exercise.

Everyday and institutionalised categorisations

The results discussed in this article reinforce, but also complement some conclusions drawn by Boltanski and Thévenot (1983) more than thirty years ago. These sociologists insisted on the fact that respondents tended to sort the cards according to a "*maraboutdeficelle*" rationale of aggregating the cards together and frequently changing classification criteria. So much so that they concluded that the "piles resulting from this process cannot be considered homogeneous in terms of a criterion or logical definition" (Desrosières and Thévenot, [1988] 2002: 53). Direct observation of the implementation of our card game showed that most respondents experiment, aggregate some cards according to a "*maraboutdeficelle*" (word-association) rationale, putting others aside and then come back to classify them among more easily established groups. This means that in fact that they have not, for the most part, applied strictly defined *a priori* criteria. On this point, our conclusions are convergent.

However, let us not confuse the process of classification and the classificatory principle. The previous observation cannot lead to the claim that there would be no typical and relatively consistent rationales of classification, in other words a social sense, even a sense of social divisions, common to the individuals surveyed. The quantification of the results of classifications from the principle of the distance between cards makes it possible precisely to expose these typical rationales. Thus, the fact that the classifications being made are almost reducible to the respondents does not alter the fact that a majority of them share common principles of division of the social world. While one should not overestimate their consistency, which is only an expression of an average distance between the cards, one should moreover not deny their existence. There are many typical categorisation rationales, which although flexible in their actual uses, are no less clearly evidence of the use of some stable classification criteria.

The examination of such everyday categorisations helps to emphasise the central role of the occupational dimension. When the results of the game are observed at the most aggregated level, the self-employed/employee distinction and then the hierarchy of employees which can be seen in terms of jobs held, emerge as the dominant

modes of structuring socio-occupational space. This result is confirmed at the level of individual variations in the categorisation rationales: around 80% of respondents have achieved classifications that are based on the occupational dimension, in terms of either its occupational work or economic sector of the company aspect, or in its job hierarchy aspect (rationales 1 and 2). Of course, these two ways of classifying occupations are not sociologically equivalent. Favouring one that depends on occupational work conveys a rather horizontal vision of society, encouraging an underestimation of occupational hierarchies, where one that depends on job evaluation leads instead to emphasizing social hierarchies and the distinction between employees and the self-employed.

Obviously, the scope of the investigation was limited and respondents did not have, except for age, sex and educational qualifications, the choice of a wider range of information to draw from which might have included, for instance, income or wealth, skin colour or even place of residence. The survey results do not demonstrate that the occupational world prevails over any other type of categorisation of the social world. However, it is used more, although it is much less easy to order as strictly, than socio-demographic variables as well as variables such as educational qualifications and employment contract, which several studies have pointed to as playing the pivotal role in locating others and oneself within social space in the contemporary period. In other words, and as other research as part of the "Life stories" study has shown (Amossé 2012), the reference to the occupational world, in connection with work content and occupational actions and/or in connection with the hierarchy of jobs, remains an essential reference point when it comes to locating oneself in social space.

By extension, the rationales of classification that were used confirm that there are still forms of convergence nowadays between the everyday ways of categorising the social world and the underlying criteria for the construction of the PCS classification. Indeed, a significant proportion of respondents created classifications distinguishing between the self-employed and employers, offering a hierarchical dimension while combining it with dimensions relating to the occupational milieu and/or sector of employment (public/private), which corresponds quite well to the PCS construction criteria. In addition, as has already been shown by Anthony Coxon, and Dominique Joye and Fabio Lorenzi-Cioldi, categorisations of social space are difficult to reduce to a single principle since they combine several dimensions. Hierarchical rationales (according to qualification or quantity of supposed cultural or economic capital) and more horizontal rationales, e.g. membership of skills or occupational fields, are often linked rather than opposed. This type of link would have been more feasible if the instructions for the game could be read in the sense of the closeness of work experience (working in the same occupational field, in the same institutions or companies) and/or social environment (belonging to the same group or the same social class).

Ultimately, though many studies have insisted on the emergence of new types of divisions and new models of regulation of social relations, one should not, however, underestimate the weight of history and the permanence of the structural role of institutions in the construction of social divisions in France since the postwar period. Global convergence between statistical categorisation and everyday categorisation, in the French case, relates to the fact that the first is based, in order to describe society, on the legal institutions and categories related to work. But institutions of the employed class such as social security, collective agreements or the general status of the civil service still powerfully organise the world of work, in a relatively

even manner throughout the territory of France, and are thus part of the common experience of people. No doubt we find here one of the explanations for the fact that statistical and everyday categorisations resonate so well within the French context.

What about the situation in other European countries? Starting from the hypothesis that everyday categorisations have close links with the official categorisations of the country concerned, and knowing that the ways of categorising work still relate primarily to national specificities, it is likely that the results discussed here are specific to the French case. The few European comparative studies in this area provide some guidance on this point (Pfeuffer and Schultheis 2002; Deauvieau and Poullaouec 2011; Filhon *et al*. 2013): Although one must not ignore some convergences between the countries, especially in how individuals categorise the top and bottom of the social hierarchy, the fact remains that strong national specificities remain in the way of understanding socio-occupational space. Only a large-scale reproduction in several European countries of an experimental methodology such as the one used here would be likely to accurately document this question. At a time when the construction of a European socio-occupational nomenclature is on the agenda, this question is crucial: how far can we produce a unique socio-occupational nomenclature in Europe if the institutions governing the worlds of work are not harmonised and if everyday categorisations for understanding the socio-occupational world are different?

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APPENDICES

APPENDIX 1. *The set of cards*

TABLE A1. *The set of cards*

Card no.	Christian name	Occupation	Sex	Age	Employment status	Educational qualification	No. of employees (*organisation*)	Supervision (*management*)	Business (*organisation*)
01	Aurélie	Pharmacist	F	26	Employee (CDI)	Bac + 6	—	None	Pharmacy
02	Catherine	Nurse	F	44	Civil servant	Bac + 2	—	None	Secondary school (*lycée*)
03	Jérôme	Engineer	M	48	Employee (CDI)	Bac + 5	—	None	Electricity production
04	Monique	Saleswoman	F	21	Employee (CDI)	Bac professionnel	—	3 people	Furniture sales
05	Cyril	Builder	M	33	Self-employed	None	None	—	Building work
06	Caroline	Waitress	F	45	Employee (CDI)	BEP	—	None	Restaurant
07	Georges	Teacher	M	50	Civil servant	Bac	—	None	Secondary school (*collège*)
08	Reda	Builder	M	23	Employee (CDI)	Bac professionnel	—	None	Housebuilding
09	Mickaël	Salesman	M	40	Employee (CDI)	Brevet des collèges	—	None	Transport international
10	Kamel	Security guard	M	23	Employee (CDI)	Bac + 4	—	None	Security firm
11	Angélique	Cleaner	F	50	Employee (CDD)	CEP	—	None	Cleaning, maintenance
12	Noëlle	Shopkeeper	F	51	Self-employed	Bac	None	—	Clothing sales
13	Maria	Auxiliary nurse	F	38	Civil servant	Bac + 2	—	None	Hospital
14	Anthony	Car mechanic	M	36	Employee (CDI)	BEP	—	None	Car repair
15	Wayne	Service technician	M	34	Employee (CDI)	Bac professionnel	—	None	Car manufacture
16	Corinne	Seamstress	F	50	Employee (CDI)	None	—	None	Clothing manufacture
17	Hélène	Assistant pharmacist	F	25	Employee (CDI)	Bac technologique	—	None	Pharmacy
18	Sabine	Self-service assistant	F	34	Employee (CDI)	None	—	None	Boulangerie-pâtisserie
19	Franck	Plumber and heating engineer	M	40	Employee (CDI)	BEP	—	2 people	Plumbing installation
20	Nicolas	Sales manager	M	34	Employee (CDI)	Bac + 2	—	3 people	Wholesale trade
21	José	Fork-lift truck operator	M	33	Temporary	None	—	None	Tyre manufacture
22	Maryse	Secretary	F	33	Employee (CDI)	Brevet des collèges	—	None	Estate agent
23	Michel	Farmer	M	51	Self-employed	None	None	—	Mixed farming
24	Cécile	Primary school teacher	F	28	Employee (CDI)	Bac + 3	—	None	Primary school
25	Jean-Claude	Company director	M	46	Employer	CAP	3 employees	3 employees	Agricultural equipment sales
26	Lynda	Office worker	F	49	Employee (CDI)	CEP	—	None	Building work
27	Marie-Françoise	Management assistant	F	59	Employee (CDI)	Brevet des collèges	—	None	Pharmaceutical manufacture
28	Christophe	Delivery driver	M	30	Employee (CDI)	CAP	—	None	Food manufacture
29	Françoise	Farmer	F	60	Employer	Bac + 2	6 employees	6 employees	Market gardening
30	Sébastien	Chef	M	41	Employee (CDI)	CAP	—	7 people	Catering
31	Guy	Warehouseman	M	51	Employee (CDI)	CAP	—	None	Car sales
32	Régis	Refuse-collector/road cleaner	M	57	Civil servant	None	—	None	Local administration
33	Pierre	Technical director	M	36	Employee (CDI)	Bac professionnel	—	10 people	Telecommunications

Appendix 2. *The sample*

Table A2. ***Comparison of characteristics of the sample and those of the French population in employment***

	"Décrire la société" Survey	**"Emploi" Survey**
Sex		
Men	52.2	52.8
Women	47.8	47.2
PCS		
Farmers	1.5	1.8
Craftspersons, shopkeepers and business owners	4.3	6.1
Managerial and higher intellectual occupations	8.9	16.2
Intermediate occupations	33.9	24.0
Employees	32.2	29.3
Manual workers	19.2	22.6
Educational Level		
< Bac	35.3	49.8
Bac	25.2	19.2
> Bac	39.5	31.0
Age		
Less than 30 years	33.1	19.8
from 30 to 44 years	43.7	54.5
45 years plus	23.2	25.7

Field: Employed population aged 18 and over living in metropolitan France.
Sources: First column: "Décrire la société" survey, 2008; second column: "Emploi" survey (continuous) 2008–2010, INSEE.

Appendix 3. *Most frequent classifications, piles and pairs*

Table A3. ***Most frequent classifications***

	Pile 1	**Pile 2**	**Pile 3**	**Pile 4**	**Pile 5**	**Pile 6**	**Pile 7**
Classification 1 (N = 12)	Self-employed	Civil servant	Employer	Temporary	CDD	CDI	
Classification 2 (N = 4)	Self-employed	Civil servant	Employer	Temporary	CDD	CDI, supervisory	CDI, non-supervisory
Classification 3 (N = 4)	60 years	21–28 years	40–49 years	30–38 years	50–59 years		
Classification 4 (N = 3)	Self-employed	Civil servant	Employer	Temporary or CDD	CDI		
Classification 5 (N = 3)	Civil servant	Self-employed or employer	Temporary or CDD	CDI			
Classification 6 (N = 3)	Civil servant	Self-employed or employer	Temporary or CDD	CDI, supervisory	CDI, non-supervisory		

TABLE A4. ***15 most frequent piles***

Pile	Freq.	%	1st card	2nd card	3rd card	4th card	5th card
C07C24	144	26.2	Teacher Civil servant Bac	Primary school teacher Employee, CDI Bac + 3	—	—	—
C23C29	112	20.4	Farmer Self-employed No educational qualification	Farmer Employer Bac + 2	—	—	—
C01C02 C13C17	94	17.1	Pharmacist Employee, CDI Bac + 6	Nurse Civil servant Bac + 2	Auxiliary nurse Civil servant Bac + 2	Assistant pharmacist Employee, CDI Bac technologique	—
C05C12 C23	84	15.3	Builder Self-employed No educational qualification	Shopkeeper Self-employed Bac	Farmer Self-employed No educational qualification	—	—
C02C07 C13C32	82	14.9	Nurse Civil servant Bac + 2	Teacher Civil servant Bac	Auxiliary nurse Civil servant Bac + 2	Refuse-collector/ road cleaner Civil servant No educational qualification	—
CO5C12 C23 C25C29	77	14.0	Builder Self-employed No educational qualification	Shopkeeper Self-employed Bac	Farmer Self-employed No educational qualification	Company director Employer No educational qualification	Farmer Employer Bac + 2
C25C29	72	13.1	Company director Employer CAP	Farmer Employer Bac + 2	—	—	—
C01C03	60	10.9	Pharmacist Employee, CDI Bac + 6	Engineer Employee, CDI Bac + 5	—	—	—
C11C21	54	9.8	Cleaner Employee, CDD CEP	Fork-lift truck operator Temporary No educational qualification	—	—	—
C21	51	9.2	Fork-lift truck operator, Temporary No educational qualification	—	—	—	—
C22C26 C27	49	8.9	Secretary Employee, CDI Brevet des collèges	Office worker Employee, CDI CEP	Managerial assistant Employee, CDI Brevet des collèges	—	—
C11	44	8.0	Cleaner Employee, CDD CEP	—	—	—	—
C03	42	7.6	Engineer Employee, CDI Bac + 5	—	—	—	—

Table A5. ***The 10 pairs of card most frequently produced***

Pair	1st card	2nd card	Frequency	%
C02C13	Nurse Civil servant, Bac + 2	Auxiliary nurse Civil servant, Bac + 2	430	78.3
C22C26	Secretary, Employee, CDI Brevet des collèges	Office worker Employee, CDI, CEP	406	74.0
C07C24	Teacher Civil servant, Bac	Primary school teacher Employee, CDI, Bac + 3	367	66.8
C28C31	Delivery driver Employee, CDI, CAP	Warehouseman Employee, CDI, CAP	362	65.9
C14C15	Car mechanic Employee, CDI, BEP	Service technician Employee, CDI, CAP	362	65.9
C14C31	Car mechanic Employee, CDI, BEP	Warehouseman Employee, CDI, CAP	334	60.8
C16C18	Seamstress Employee, CDI, No educational qualification	Self-service assistant Employee, CDI, No educational qualification	333	60.7
C08C14	Builder Employee, CDI, Bac professionnel	Car mechanic Employee, CDI, BEP	326	59.3
C23C29	Farmer Self-employed, No educational qualification	Farmer Employer, Bac + 2	321	58.5
C22C27	Secretary Employee, CDI Brevet des collèges	Managerial assistant Employee, CDI Brevet des collèges	320	58.3

Appendix 4. ***Measuring the proximity between classifications***

How does one measure the mean proximity between classifications produced by all respondents? The solution adopted here was to calculate the average of concordant and discordant card pairs among all respondents taken in pairs (Penissat and Jayet 2009). Three scenarios are possible for a given card pair, when comparing two individuals: either the two respondents took the pair (A), or they did not take the pair (B) or their choice was divergent (C), one taking this pair and the other not. On average across all respondents taken in pairs, 6% of the 528 pairs were taken jointly by two respondents (A), 66.7% were not taken by the couples surveyed (B), and 27.3% were divergent (C). By adding both convergent scenarios (A + B), 73.7% of 528 pairs are convergent on average over all couples of respondents.

How should this result be interpreted? This means that it applies to a range of cases with a minimum and maximum threshold. The maximum threshold is the case where all respondents have achieved the same classification, thus the situation where the proportion of converging pairs (A + B) equals 100%. The minimum threshold is more complex to determine. Consider the case where the 547 respondents have produced their rankings completely at random: what would be the average distribution of proportions A, B and C? This distribution depends on the average number of completed piles, and more precisely the number of card pairs produced. The randomization proportions A, B and C correspond to the following expressions:

Let m be the mean number of piles produced by a set of individuals,

$$A = \frac{1}{m^2} \qquad B = \frac{(m-1)^2}{m^2} \qquad C = \frac{2(m-1)}{m^2}$$

To increase accuracy, we replace the mean number of piles produced by the average proportion *f* of pairs produced. We then replace *m* by *1/f* in the above equations, and we then obtain:

$$A = f^2 \qquad B = (1 - f)^2 \qquad C = 2(f - f^2)$$

One therefore fixes the proportion of card pairs taken at the average observed over the whole sample (19.7% in this case) and applying the above expressions, one calculates the values A, B and C in random cases. This produces A-random = 3.9%, B-random = 64.5%, and C-random = 31.6%. So, by fixing a number of pairs at the average level found in the sample, then we will obtain randomly 68.4% of converging pairs (A-random + B-random).

The observed result is then compared empirically to this theoretical value. The difference between the two, here a little over 5 points, is the difference observed in relation to the situation of independence between the classifications. Is this difference important? We calculate for that the percentage of the maximum proximity (PPM) or the ratio of the observed difference (here 5 points) and the maximum difference (100–69, 31 points). The PPM on the total sample here is therefore 16%. On average, all respondents have a proximity that corresponds to 16% of maximum proximity. This result should be contextualised, in other words put in a realistic range. A PPM of 100% would correspond to the fact that all respondents have made, independently of each other, exactly the same classification, which is empirically unlikely (except of course if they are all agreed before playing!). On a subset of the sample containing respondents who used employment status and employment contract as an almost unique classification criterion (see below), i.e. an easily interpreted criterion, the PPM rises to 50%. In other words, when respondents are actually very close from the point of view of classifications, the PPM is empirically at 50%. The value obtained for the whole sample thus corresponds to approximately 1/3 of the highest proximity ascertained empirically. The proximity of all the rankings is thus real, but its extent remains relative. Respondents have shared the classification elements without applying a single classification rationale.

Appendix 5. *Studying the shared dimensions of categorisations*

In order to view the average rationale of any set of individuals (whether of all respondents or a subset), we proceed to the analysis of the matrix of distances between the cards unique to this group. The distance between the cards is constructed in the following way:

Distance between cards 1 and 2 = (N-nC01C02)/N

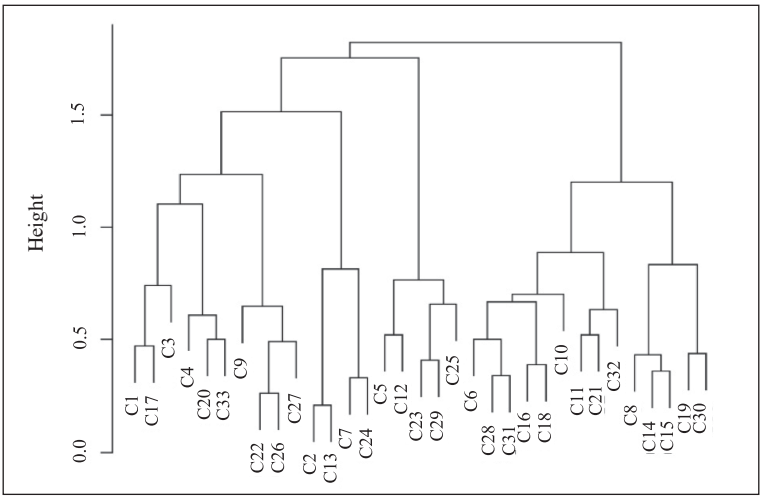
with N = total number of all considered and
nC01C02 = number of individuals from the whole sample who took this card pair

This distance varies from 0 (where all individuals have taken this card pair) to 1 (when no individual has taken this pair). The distance is calculated between all of the cards taken two by two and one then obtains a matrix of distances between the cards for the set considered.

A hierarchical clustering is then performed directly on this distance matrix (with the Ward criterion). The cards are thus aggregated according to their greater or lesser distance between them and represented as a dendrogram. One then cuts the tree at a given level and then obtains a classification of cards based on the distances between the cards taken in pairs. The number of piles obtained, and therefore the location of the cut in the dendrogram is decided, firstly, by examining the shape of the dendrogram—the practice of ensuring that the tree is cut at a place indicating a jump in the classification—and, secondly, by examining the mean number of piles actually produced by individuals of the respective subgroup. The ranking obtained by the classification is the "mean" classification of the respective subgroup.

The dendrogram resulting from the classification performed on all 547 respondents will be found below (Figure A5). This indicates that a division into seven piles is useful from the point of view of the lack of information. As this number of piles also corresponds to the average number of piles made by respondents, we have chosen to keep it to make the "mean" classification of cards.

Figure A5. ***Mean rationale of classification***



This first analysis is supplemented by a factor analysis of the matrix of distances between the cards, using the multidimensional scaling method. We have implemented a metric type of analysis. The "stress" indicator is 0.19 when the first six axes are taken into account, which can be considered an acceptable level. The inertia of the first six axes is broken down as follows (the total inertia is calculated on the basis of the six areas selected):

Axis 1: 0.65 (29%)
Axis 2: 0.49 (22%)
Axis 3: 0.37 (17%)
Axis 4: 0.28 (13%)
Axis 5: 0.23 (10%)
Axis 6: 0.19 (8%)

We analyse the first four axes, which restore 82% of the information contained in these first six axes of the multidimensional scaling analysis.

Appendix 6. *Describe typical rationales of categorisation*

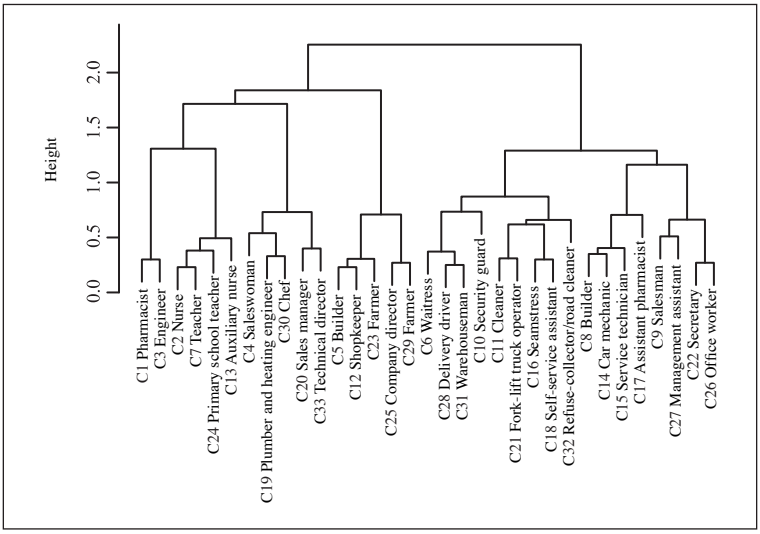
This article seeks to explore variations in the rationales of categorisation. To do this, we first carried out a typology of individuals surveyed from their responses on the 528 variables of card pairs. This typology is built in two stages. An ascending classification is first produced (from the Ward criterion) on the set of 528 card pairs variables. By interpreting the dendrogram, it is estimated that a division into 5 groups of people is useful.

We then produced, from the paragons of each group, a K-means procedure to re-aggregate the individuals in the five groups, from individuals located in the centre of each class. This procedure makes it possible to construct more stable groups. To determine the typical rationale of categorisation of the different groups obtained, we then carried out for each group an analysis of the matrix of distances between the cards on the same model as for all the individuals described in Appendix 5. Finally, to explore the heterogeneity of groups, especially the first two which are the most numerous, all operations (classification/K-means stabilization and analysis of the matrix) are repeated a second time, allowing a check to be made on the degree of homogeneity of the five typical rationales distinguished.

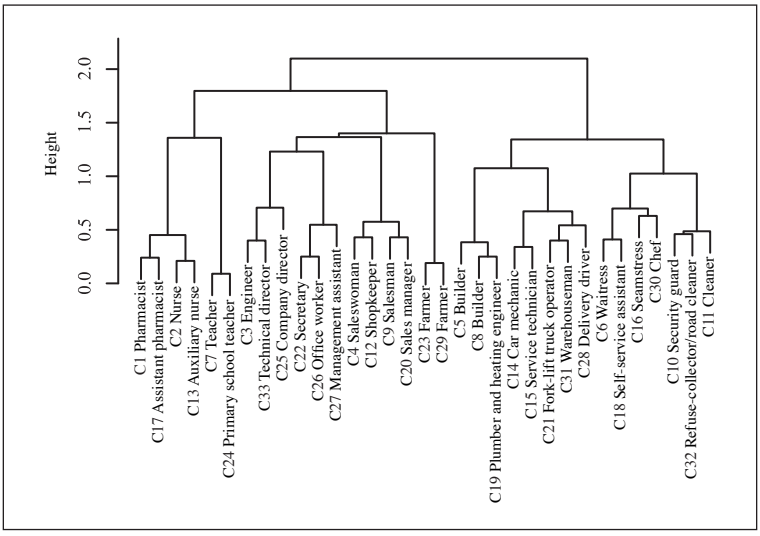
Dendrograms derived from the following classification made from the distances between the cards for each of the 5 classes of individuals corresponding to the four rationales of classification described in the article will be found below.

Figures A6. ***Dendrograms from the classification for each of the 5 classes of individuals corresponding to four rationales of classification***

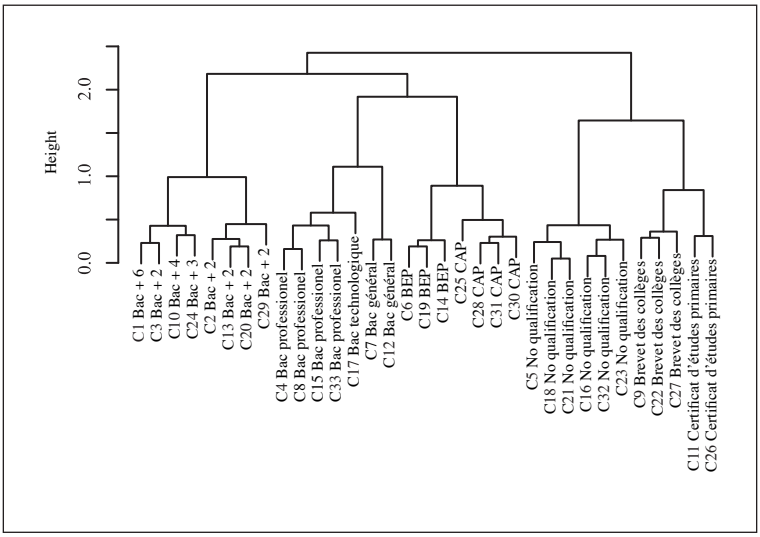
Group 1 (Rationale 1: Hierarchy)
Dendrogram of Agnès (x = distance, diss = t, method = "Ward").
Agglomerative coefficient: 0.84



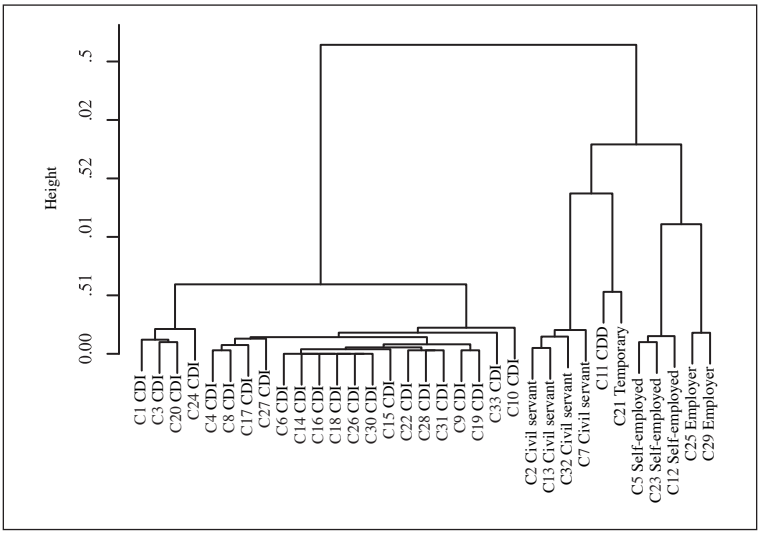
Group 2 (Rationale 2: Occupational work)
Dendrogram of Agnès (x = distance, diss = t, method = "Ward").
Agglomerative coefficient: 0.82



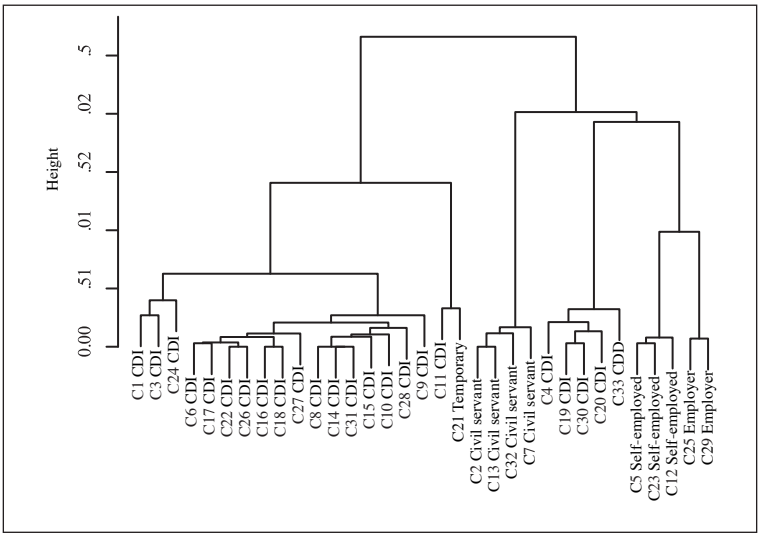
Group 3 (Rationale 3: Educational qualification)
Dendrogram of Agnès (x = distance, diss = t, method = "Ward").
Agglomerative coefficient: 0.9



Group 4 (Rationale 4: employment contract)
Dendrogram of Agnès (x = distance, diss = t, method = "Ward").
Agglomerative coefficient: 0.96



Group 5 (Rationale 4: employment contract)
Dendrogram of Agnès (x = distance, diss = t, method = "Ward").
Agglomerative coefficient: 0.96



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