"For richer, for poorer": savings preferences and choice of spouse

Luc Arrondel (PSE, CNRS)[*]   Nicolas Frémeaux (PSE)[†]

July 2013

Abstract

Do couples share the same values? The social sciences have mainly concentrated on comparing the socioeconomic characteristics of spouses, but rarely their preferences to risk and time. In this paper, we use conventional measurements and an original method. We find that spouses are very similar in their savings preferences, even when we control for the individual characteristics. These conclusions are decisive in explaining wealth inequalities between households, since homogamy causes a divide in the population. However, if the relationship between preferences and wealth is clear when measured at the household level, spouses with opposite attitudes tend to be richer for some parameters.

JEL codes: J12, D63, D31, D12

Key words: homogamy, savings preferences, household wealth, inequalities

---

[*]Contact: 48, boulevard Jourdan - 75014 Paris (France); arrondel [at] pse.ens.fr

[†]Contact: 48, boulevard Jourdan - 75014 Paris (France); nicolas.fremeaux [at] ens.fr

1 Introduction

> "... because I think that love,
> real love, has got nothing to do
> with statistics..."
>
> *Meetic advert* [translated from the French]

Do risk-lovers tend to choose partners who share their love of risk? And what about the other dimensions of individual preference? In other words, do couples share the same values? This is the question, as yet somewhat neglected, that we address in this paper.

The literature in the social sciences has underlined the existence of a strong similarity between spouses in terms of education, income and inherited wealth. But few studies have investigated the question of similarity in more subjective characteristics such as individual preferences, and in particular those involving saving and wealth management decisions (risk aversion, preference for the present, altruism, etc.). The existing theoretical works predict heterogamy in attitudes to risk; in other words, risk-lovers should choose risk-averse partners. In addition to better identifying the choice of spouse and empirically testing the validity of these models, this question plays a role in other important debates, such as how to explain wealth inequalities. On this subject, two well-established conclusions have been highlighted by the economic literature.

Firstly, homogamy increases wealth inequalities between households and also affects intergenerational mobility. The similarity between spouses in terms of education, income or inherited wealth leads to a concentration of wealth among households. Along these lines, Atkinson (1975) showed that perfect homogamy would be equivalent to every brother, in each family, marrying his sister, his female "clone".

Secondly, preferences for saving explain a significant part of the differences in household wealth. Wealth accumulation can be driven by several different motives, notably precautionary, life-cycle and bequest considerations. *Ceteris paribus*, the individuals who are most sensitive to these motives will tend to save and therefore accumulate more wealth. However, some papers defend the reverse causality and show that wealth can

affect preferences.

The first aim of this article is to reconcile these two strands of literature by examining the relationship between wealth inequalities and homogamy in terms of risk and time preferences. But this work also provides a useful contribution to the analysis of the formation of preferences and their transmission between generations. The literature on this subject is scarce and very recent, and many questions remain unexplored. By studying homogamy in terms of attitudes to risk and time, we are focusing on the stage which precedes the formation and transmission of preferences, but which may nevertheless be helpful for understanding them.

One of the difficulties of our analysis lies in the measurement of individual preferences. Conventional measures like lotteries or self-evaluation scales have several drawbacks. The criticisms that are levelled at them fall into two categories: lotteries are accused of being too abstract or artificial, while scales can be judged irrelevant and imprecise. In this paper, we use a new indicator that overcomes these defects, proposed by Arrondel and Masson (2013) and based on a method of scoring. In particular, this new measurement of preferences turns out to perform better than the conventional measurements in its capacity to explain wealth management decisions, stability over time, statistical properties, etc. To implement this new method, we draw on an original survey (PATER). In addition to the sociodemographic and economic description of each household, this survey contains a large number of questions aiming to measure savers' preferences on the basis of the different methodologies (lottery, scale and score). Using the many questions available, we have constructed synthetic and ordinal scores for each individual, in order to measure their attitudes to risk and time.

We observe a similarity between partners in their attitude to risk, whatever the indicators used. The correlation between individuals' preferences is positive and significant, ranging from 0.2 or 0.3 for lotteries and scales to 0.5 for the scoring method. Homogamy is also present in terms of life-cycle motives, with similar results for the correlations. The similarity of spouses' attitudes to risk and time only slightly grows with the age of spouses. Econometric analysis shows that this homogamy in psychological profiles remains valid

even when we take the other individual characteristics of spouses into account, such as age, social background and position, religious beliefs, etc. The choice of spouse according to time or risk preferences turns out to be primarily a matter of taste. These results also shed light on the mechanism by which preferences are transmitted from parents to children, by showing that both parents play a role in the transmission of values.

The other important contribution of this article is that it points up the implications of these results in terms of wealth inequalities. Preferences with regard to time and risk may have a direct effect on wealth accumulation (people who are more precautionary, farsighted and altruistic accumulate more wealth) but the reverse causality may also exist. The mutual attraction between people with similar savings profiles can reinforce "vicious" or "virtuous" circles. We show that the least altruistic, patient, risk averse or farsighted households are in average poorer than the most virtuous households. The gap between households with opposite attitudes depends on dimension. It is very large for foresight and rather small for patience. However, we also demonstrate that the most virtuous couples are not necessarily the richest. More specifically, except for foresight, the richest households are the combination of a patient and altruistic women and impatient and non-altruistic men. For risk, the estimates do not indicate any preferable combination of preferences.

Section 2 relates our work to the existing literature. We then briefly address the theoretical approach to savers' preferences before introducing the data and the different ways of measuring these preferences. In section 5, we present the results, starting with the measurements of homogamy, before concluding with an analysis of wealth inequalities.

2 The homogamy of preferences: a question neglected by the literature

The aim of this article is to study the degree of homogamy with regard to risk and time preferences. The origins of the economic literature on the question of the choice of spouse lie in the works of Becker (1973, 1974 and 1981). One of the questions that arises is

whether maximisation of the household's production function depends on complementarity or substitutability between the spouses. The existing empirical works generally focus on dimensions such as income (Becker 1981, Lam 1988, Zimmer 1996, Zhang and Liu 2003, Nakosteen *et al.* 2004 among others), education (Pencavel 1998, Fernandez *et al.* 2005, Schwartz and Mare 2005, Chiappori *et al.* 2011) and to a lesser extent inherited wealth (Charles *et al.* 2013, Frémeaux 2013). Many sociological works have examined this question (Girard 1964, Bertaux 1977, Arrondel and Grange 1993, Pinçon and Pinçon-Charlot 1997, Bozon and Héran 2006). Most of the results support the idea of similarity between spouses, although the degree of similarity may vary from one dimension to another. The differences between the methods used and the samples to which the analyses apply make it difficult to rank the importance of the dimensions mentioned above. Nevertheless, one can say that the respective levels of education of the two spouses are more similar than their incomes or their inherited wealth (where the correlations lie between 0.1 and 0.3[1] and 0.2-0.4 respectively). Other authors have studied the psychological characteristics of the spouses. For example, Smith *et al.* (2010) find positive correlations for cognitive abilities.

Research works analysing homogamy in terms of savings preferences are much scarcer. Chiappori and Reny (2006) develop a theoretical analysis of the marriage market from the perspective of attitudes to risk. They predict that the most risk-loving individuals should take the most risk-averse spouses so that risk-taking within the household is balanced (risk-sharing). To our knowledge, only Dohmen *et al.* (2012) and Kimball *et al.* (2009) have empirically tested the presence of selective matching on these variables of preference. In the first article, using self-evaluation scales, the authors obtain a correlation between spouses of 0.4 for risk aversion and slightly more (0.45-0.5) for trust.[2] In the second article, risk preferences are measured by means of lotteries and the correlation obtained is of the same order.

In line with the literature on non-unitary models (Chiappori, 1992; Browning, 2000,

---

[1]However, certain works, like Zhang and Liu (2003), find a negative correlation between the spouses' wages, when education and age are controlled for.

[2]By "trust", the authors mean trust in others, the willingness to rely on other members of society.

among others), several papers consider households in which spouses have different preferences. Mazzocco (2004) concentrates on savings in households where the spouses have opposite risk attitudes. His findings are counter-intuitive. Firstly, the couples with opposite attitudes save more than the others. Secondly, an increase in the prudence of one spouse leads to a fall in the prudence of the household and consequently in its level of savings. Jouini *et al.* (2013) extend this analysis by modeling the risk attitude of a group of heterogenous agents. More specifically, they show that an increase of the level of risk tolerance of one agent may have an ambiguous effect on the aggregate level of risk tolerance depending on the levels of aggregate wealth. Yilmazer and Lich (2013) focus on the allocation of assets in household financial wealth. They find that the share of risky assets increases as the risk tolerance of the spouse who has more bargaining power increases. The research work presented in our paper is above all empirical, but it does shed some light on the decision-making process within the household and more precisely within the couple. Examining the degree of similarity between the spouses in this respect gives us some idea of the extent to which there is cooperation or, on the contrary, negotiation between the two spouses. Therefore, our results may indicate whether non-unitary models are relevant for studying the household decisions regarding wealth.

The choice of spouse is closely linked to the intergenerational transmission of capital (economic, human, etc.) and preferences. The choice of spouse has long-term effects, because it affects not only what will be transmitted from parents to children but also the very mechanism of transmission. Solon (1992) pioneered empirical research on this subject, estimating intergenerational elasticities of income between parents and children[3]. Several articles have focused on the similarity of preferences between parents and children. Jellal and Wolff (2002) carry out a quantitative analysis of the transmission of characteristics related to altruism. Based on self-evaluation scales, Dohmen *et al.* (2012) extend this kind of study to attitudes to risk, and they obtain positive correlations. Knowles and Postlewaite (2005) find that the propensity to plan for the future is transmitted from parents to children. Charles and Hurst (2003) and Arrondel (2013) make the connec-

---

[3]See Black and Devereux (2011) for a complete review of the literature.

tion between the transmission of preferences and the intergenerational wealth elasticity. These two articles demonstrate the existence of positive correlations between parents and children for both wealth and preferences but they diverge about the explanatory power of preferences in the wealth elasticity[4].

Recently, several articles have attempted to estimate the importance of the choice of spouse in explaining economic inequalities (and their persistence), focusing mainly on incomes (Kremer 1997, Chadwick and Solon 2002, Fernandez *et al.* 2005 Ermisch *et al.* 2006, Raaum (2007). For example, Ermisch *et al.* (2006) estimate that homogamy explains slightly less than half the income elasticity between parents and children. In this article, we seek to bring to light the role of preferences in the choice of spouse and intergenerational transmission.

3 The standard theory of the saver and the choice of spouse

Before describing and illustrating our method for measuring savers' preferences, let us address the problem of the number of parameters of taste that should be introduced.

The standard life-cycle model assumes that saving behaviour is independent and prospective: the subject only looks ahead (towards the future), neither behind (to the past) nor to the sides (what the neighbours are doing). Proof of rationality, his choices are also time-consistent: if his expectations are verified over time, his initial consumption plan is implemented as anticipated and not modified.[5] Under these hypotheses, the standard model, which is very parsimonious, only uses the three parameters of preference relating to the dimensions of risk, time and family:

- The (relative) aversion to risk determines in particular the level of precautionary

---

[4]The share of elasticity explained by preferences is 4 to 5 times greater for Arrondel than it is for Charles and Hurst

[5]A famous counter-example is that of Ulysses and the Sirens, where Ulysses suffers a lack of self-control of which he is perfectly aware. Facing a conflict of personality (or of preferences) between his present self and his future self, the former places the latter (who will want to swim to the Sirens) under tutelage by having himself tied to the mast.

saving and the share of low-risk assets in the portfolio: the higher the risk aversion, the larger (proportionally) the risk or insurance premium the agent is willing to pay to cover himself against a given risk;

- The time discount rate over the life cycle or the degree of preference for the present, which reduces the importance attached to satisfaction of the future self compared with that of the present self, causes an equivalent reduction in the decision horizon of an agent with a given life expectancy: saving for retirement varies inversely with this parameter;

- The degree of family "altruism", in other words the importance attached to the well-being of one's children compared with the satisfaction derived from consumption for oneself, determines the strength of the transmission motive.[6]

The life-cycle model thus identifies three main motives for the accumulation of household wealth: *precaution*, linked to "prudence" and risk aversion; *intertemporal smoothing* of consumption and saving for retirement, which is a function of the degree of "foresight"; and the wealth destined for *transmission*, which depends on the degree of family altruism; in this context, the choice of portfolio depends above all on the level of risk aversion.

However, it is now accepted that this basic model is inadequate for describing savers' behaviour: in particular, other parameters of preference are needed in order to take into account their limited rationality. Thus, both theory and data lead us to adopt four parameters of preference:[7]

- γ represents attitudes to risk (aversion, prudence, etc.);

- δ represents long-term preference for the present, in other words the time discount rate over the life cycle;

---

[6] *Technical note*: the standard model assumes a time-additive and isoelastic utility function with an exponential discount rate (the time discount rate may depend on age but not on the distance from the present). Under uncertainty, the saver maximizes his expected utility. The inverse of the intertemporal substitution elasticity, the constant parameter of relative risk aversion determines the degrees of "prudence" for precautionary saving and of "temperance" for the management of multiple risks.

[7] For a justification of this choice, see Arrondel and Masson (2013).

- β represents short-term impatience, which generally testifies to time-inconsistent choices (limited rationality) related to a weakness of will or lack of imagination - see Laibson (1997);

- θ measures the degree of family altruism, in other words the importance attached to one's children's well-being rather than one's own consumption.

For each (type of) preference that we seek to measure - attitude to risk (γ), preference for the present (δ), short-term impatience (β), family altruism (θ) -, we have selected *a priori* a certain number of questions; some of them, of a polysemous nature, have been assigned to two indicators at the same time, notably γ and δ (the future is both uncertain and distant from the present).

In this paper, we look at the preferences at the two agents. The basic question we address is: should we observe a similarity of preferences between spouses? Actually, the theoretical predictions are far from being straightforward. Classical marriage models (Becker 1974, 1981) predicts negative assortative mating between some spouses' traits but this has more to do with skills than with preferences. Chiappori and Reny (2006) tackle this issue and predict that risk sharing leads to negative assortative mating. People exploit their comparative advantage by matching people with opposite preferences in terms of risk. As a consequence, we could expect spouses attitudes to risk to be largely different.

To our knowledge, there is no model with opposite predictions. However, intuitively there are several reasons why we would expect positive assortative mating. If people share the same tastes, they are more likely to meet. Moreover, the fact to agree on decisions regarding the household (economic, children's education...) also makes the couple less likely to get separated. In line with Dohmen *et al.* (2012), an intergenerational motive may also be invoked to predict positive assortative mating. If people have a preference for children with attitudes similar to their own, they should be determined in being in couple with someone with risk and time attitudes also close to their own. Thus, there is no consensus regarding the eventuality of substitutability or complementarity on spouses' preferences relative to risk and time. As a consequence, our contribution is to provide an

empirical validation of one of these two competing hypotheses.

4   The PATER survey and the measurement of savings preferences

Fruit of an experiment lasting nearly fifteen years, our body of data is composed of five successive surveys, the main aim of which was to study the wealth of households in parallel to their preferences in terms of saving (risk aversion, preference for the present, altruism, etc.). In this article, we only use the 2007 wave of the census, which allows us to make a direct comparison between the two partners. In this section we shortly present the data and describe the methodology. Appendix A provides more detailed information about the scoring method.

4.1   Presentation of the data

Conducted by the INSEE (French National Institute for Statistics and Economic Studies) in 1998, the first PATER survey[8] was a complementary module to the "*Patrimoine 1998*" survey. The four subsequent PATER surveys (2002, 2007, 2009 and 2011) were commissioned from the TNS-Sofres institute on a representative sample of the French population. Unlike the other waves, the 2007 survey applied the questionnaire to each member of the couple separately[9], to better analyse the financial decision-making process in the household. We therefore use this wave in order to estimate the degree of similarity between spouses.

The information collected in the different surveys (including 2007) involves a sociodemographic description of the household, the value, composition and management of its wealth, an inventory of its incomes, the existence of intergenerational transfers given or received, together with more subjective data about expectations of growth and risk (at five years, for example) on personal income and the price of assets. The survey contains

---

[8]PATER for "*Préférences et Patrimoines face au TEmps et au Risque*" ("preferences and wealth in relation to time and risk").

[9]In 2007, there are a total of 3826 households in our sample; for 905 of them, the questionnaire was applied to each member of the couple (with a period of time between the two).

a large number of more qualitative questions aiming to measure individual preferences with respect to risk and time (lottery choices) but also according to attitudes (opinions and behaviour in different areas of life).

4.2 Measuring savers' preferences: the different methods

Each PATER questionnaire (from 1998 to 2011) includes a series of measurements of preferences obtained using different methods. Two of these methods, the "conventional" ones, are proposed in the literature. The third is the product of an original approach, based on a procedure of scoring, which have been developed and improved between 1998 and 2011.

4.2.1 The traditional methods: lotteries and scales

We shall not describe in detail the measurements used in this article (for a detailed review of these traditional measurements of preferences, see Arrondel and Masson, 2013). As far as attitudes to risk are concerned, the most well-known and widely used measure is that of relative risk aversion pioneered by Barsky *et al.* (1997). It is based on hypothetical lottery choices concerning the individual's permanent income. The individual is proposed different job contracts in place of his actual one, generating a life-cycle income Y. In the first question, the contract proposed is the following: the individual has a 0.5 probability of earning $2Y$ and a 0.5 probability of only earning $2/3$ Y. If the individual is willing to participate in this first lottery, he is proposed a second, more risky lottery, where the probabilities remain the same but the scale of the loss increases, since he now has a 0.5 probability of only earning $1/2$ Y. If he refuses the first lottery, he is proposed a second, less risky one, where the probabilities of winning or losing still remain the same but in the event of loss, his income only falls by 20%. In the end, this method allows individuals to be classified into four categories, from the most risk-averse to the most risk-tolerant.

Other measurements of the attitude to risk ask the interviewee to place himself on a scale from 0 to 10, according to what he perceives to be his attitude to risk: 0 corresponds to "very prudent" and 10 to "audacious" (the two items are described in greater detail).

These self-evaluation scales ranging from 0 to 10 can be asked "in general" (as in the PATER survey) or for specific areas of life: health, sport and leisure, work, finance, etc. (Dohmen *et al.*, 2012).

The measurements of preference for the present, and more precisely the time discount rate, are not so robust, as demonstrated in the somewhat deprecatory survey by Frederick *et al.* (2002). Nevertheless, we do have a self-evaluation scale of preference for the present ranging from 0 ("taking each day as it comes") to 10 ("concerned about the future"). These scales also exist to measure patience, running from 0 for "very impatient" to 10 for "very patient".

Arrondel and Masson (2013), among others, highlight a number of shortcomings in these standard indicators, such as the fact that they are too abstract or artificial (lottery choices), or too generalised and irrelevant (scales), or the high level of "noise" affecting the replies. In their survey on the measurement of personality traits, Borghans, Duckworth, Heckman and Well (2008) recommend "a multidimensional and domain-specific approach" to the measurement of risk preferences. This is the solution we use in the paper.

4.2.2 An original alternative method: the calculation of synthetic, ordinal "scores"

The scoring method consists in calculating scores to "profile" individuals according to their propensity for risk and the way they approach the future. These synthetic, ordinal scores are calculated on the basis of a large set of questions that cover a wide range of areas of life, including consumption, leisure, investments, work, family, health and retirement. In all, more than a hundred questions are used, of different kinds: most of them, of a practical nature or relating to daily life, are questions about behaviour, opinion or intentions which are relatively easy to answer; others concern reactions to imagined scenarios or more abstract lottery choices. From these questions, the aim has been to construct, for each survey, consistent relative indicators or "scores" of preferences or attitudes in the four fields distinguished by theory: risk or uncertainty, the long term (preference for the present), the short term (impatience), and the (family) altruism, bearing in mind that the

models often distinguish several parameters of preference within each field[10]. Appendix A presents the set of questions used to built the scores.

The first step consists in *a priori* allocation of each of the questions asked to one of the four fields of preference. Inevitably, there is some overlapping, concerning the distinction between short- and long-term, for example, and even more the fact that the future is both uncertain and far-removed from the present.

More generally, when one seeks to interpret the answers given to these kinds of questions about daily life, one inevitably faces difficulties, notably due to effects of context and non-relevant factors. For example, a risk-loving individual may avoid parking illegally simply through civic-mindedness. Consequently, the idea underlying the new method is that only the "average" of all the answers is significant, provided that the aggregate allows us to more or less eliminate these elements of interference. As a second step, therefore, the statistical method consists in encoding the answers, generally with three values. In the case of time preference, for example, this would give: - 1 for a short-term view; 0 for a mid-term view; + 1 for a long-term view. For each individual, the "marks" thus obtained are then added up. The final score is the sum of marks reduced solely to those items which are seen, *ex post*, to form a statistically consistent whole.

So the scores are aggregate, qualitative and ordinal measurements, assumed to be representative of the answers supplied by the survey to various questions. The problem then arises of the number of different scores that should be introduced into each field of preference, especially that of uncertainty. The (non-standard) theory identifies several different parameters of preference in this field. The experimental data tend to show that subjects do not react in the same way to small risks as they do to large risks, and one cannot, therefore, consider the answers given to trivial questions of choice on the same level as crucial decisions. Lastly, attitudes to risk are likely to vary from one area of life to another: after all, paragliding and tax evasion are both risky activities, but they have little else in common.

---

[10]This is notably the case for risk or uncertainty, which may include aversions to risk, to loss and to ambiguity, "temperance" (in the management of multiple risks), "pessimism" or "optimism" (in the evaluation and subjective transformation of probabilities), etc.

Here it is the data that have the last word. As far as risk is concerned, Arrondel and Masson, aware of the problem, kept about sixty questions in the 1998, 2009 and 2011 waves and more in the 2007 wave. On the five PATER surveys, it is verified that one sole score is always sufficient for an ordinal characterisation of the interviewee's attitudes to risk and uncertainty (instead of the degree of his aversion to risk or prudence, or his aversion to loss or ambiguity). Less surprisingly, preference for the present, short-term impatience and altruism in favour of the children can each be characterised by one sole representative score in each PATER sample. The constancy of these results already reveals something of the robustness of the scoring method used.

This aggregation of answers also affects the interpretation of the scores. The exact parameter measured (risk aversion or prudence for instance) is not a crucial issue as long as the departure from expected utility and homothetic preferences is limited. The scores measure a general attitude more than a specific parameter.

Arrondel and Masson (2009, 2013) show that the preferences measured by synthetic scores perform better (in terms of explanatory power, stability, time correlation, etc.) than conventional measurements, in particular lotteries and scales. For further details on the method of constructing scores and their properties, see Appendix A and Arrondel and Masson, 2013)

5 Birds of a feather?

5.1 What are the determinants of preferences?

Table 1 presents the distribution of the different indicators of time and risk preferences for the 2007 wave of the survey. The aim here is to detail both the differences between men and women and the effect of marital status on preferences. These results concern the whole of the PATER 2007 sample, and not just the 905 couples. The table is divided into three parts: in panel A, we use lotteries, in panel B, self-evaluation scales, and in panel C, the scoring method.

This first descriptive analysis produces two main results. Firstly, there are differences

between men and women, and they are slightly less pronounced in the scores than in the other two indicators. Whatever the method used, men are clearly more risk-tolerant than women. Women are more altruistic and more patient and have a lower preference for the present than men. However, these differences between the genders are only significant with the scoring method.[11] These results are in keeping with the works of Andreoni and Vesterlund (2001) for altruism and Powell and Ansic (1997) for risk aversion.

The second result concerns marital status. We observe no difference between married and single individuals as far as patience is concerned. On the other hand, unmarried, divorced and widowed individuals are generally less prudent, less farsighted and less altruistic than married individuals. Several effects are involved here: age, the presence of children and of course the presence of the spouse can explain these differences.

More generally, when we look at individual characteristics with regard to preferences, the results, not presented in this table, are generally in the expected sense: men are more risk-tolerant than women, and the young more than their elders; one is more likely to have a long-term view (a low time preference) when one is older, more educated, married or has children (and foresight also appears to be transmitted by the interviewee's mother); one is more altruist if one is educated; but the most impatient individuals over the short-term do not have any particular characteristics.

General descriptive statistics are presented in appendix B, distributions of scores in appendix C.

5.2 Opinions on homogamy

Many works have sought to measure the degree of homogamy in terms of income, social origin or level of education (see section 2). However, the importance that individuals themselves attach to homogamy is rarely studied. In the PATER survey, individuals are asked about the role of homogamy as a factor of stability for the couple.[12] Several

---

[11]The results in the form of regressions are presented in Appendix C.

[12]The exact wording of the question is the following: "In your opinion, apart from feelings, for a couple to endure, it is preferable for the spouses to...". This is followed by a list of the different dimensions described in the text.

variables are detailed: income, social origin, political sensibility, religious or philosophical orientations, tastes (leisure activities, lifestyle, etc.) and ethnic origin.

Table 2 presents the answers to this question, with the sample again broken down by gender and marital status. For 80% of interviewees, for a couple to endure it is preferable for the spouses to share the same tastes. Then, in decreasing order of importance, come social origin, religious or philosophical orientations, ethnic origin, political sensibility and lastly income. It is interesting to see that a similar level of income is seen as a source of stability by less than 20% of interviewees. Marital status and gender do not change the order of preferences, but there are differences in terms of level. Thus, more than social, religious or ethnic similarities, individuals are looking for spouses that share the same lifestyle. However, the link between lifestyle and the other dimensions listed here is strong, and may conceal a social or religious motivation, for example. Nevertheless, this variable of taste is still the one that best approaches the concept of risk and time preferences that we shall subsequently measure.

Is there homogamy concerning the opinion on homogamy? For each of the six variables studied above, we have created matrices to measure the degree of similarity between spouses (Tables 3a to 3f). The result is clear: people choose partners who have similar opinions to their own. For example, 80% of the men who think that "for a couple to endure, a similar social origin is preferable" are married to women who share the same opinion (Table 3b). Thus, spouses generally share a similar opinion about the important factors for the longevity of the couple. The Chi-square test provides us with a precise evaluation of the independence of preferences. For each of the dimensions of homogamy, independence between spouses is rejected.

In this first analysis, we see that the couples themselves consider tastes and lifestyles to be key parameters for the stability of the couple, much more so than income or social origin. The next part of the article examines whether this subjective judgement is verified in the data.

5.3 The correlation between spouses' attitudes to time and risk

In this section, the aim is not only to analyse the extent of the similarity between spouses' preferences but also to compare the different measurements with each other. This comparison will allow us to relate our results to the existing work and to bring to light the differences between measurements in a single sample.

5.3.1 Empirical strategy

The empirical strategy is the same for all measurements. To estimate the relationship between spouses, we regress the measure of preference of the male partner on that of the female partner for all cohabiting married and non-married couples.

$$Preferences_M = \alpha + \beta Preferences_F + \gamma X + u \tag{1}$$

where X is a set of control variables and u is an error term. Estimates are from OLS regressions.

In order to identify the correlation between preferences only and not between other observed characteristics, we control for all the possible characteristics that can somehow influence the correlations between preferences: age, education, occupation, social origin, presence of children, inequality between spouses, religion, opinion regarding marriage, type of city of residence... The complete list of control variables and their definition are detailed in appendix D.1.

Last but not least, a crucial question is to determine whether the similarity between spouses is the result of matching or due to the influence of one spouse on the other. To do so, we decompose the sample according to the age of the male partner[13] in three categories: under 40, between 40 and 60 and above 60 years old.

---

[13]It would have been ideal to know the date of formation of the couple. In the absence of that variable, we use the man's age as an approximation of the duration of the couple's relationship.

5.3.2   Lotteries

We start our comparison of spouses with Barsky lotteries. To compare them with the other measurements used, we have made these measurements continuous. The different possible combinations are encoded from 1 to 4 so as to create a progression in risk tolerance.

This approach, adopting a continuous form, makes it easier to read the results, but causes a loss of information on the degree of similarity between spouses at different points on the distribution. The wording of the question allows us to classify individuals according to their degree of risk tolerance as follows:

1. Reject both lotteries (L1)

2. Reject the first; accept the second (L2)

3. Accept the first; reject the second (L3)

4. Accept both lotteries (L4)

Given the low numbers in categories L2, L3 and L4, we present a simplified matrix (Table 4) by combining these three categories. The values presented along the diagonal of the matrix, indicating the degree of similarity between the spouses, are high. Thus, 60% of the men who rejected both lotteries have spouses who made the same choice. Independence between the spouses, again measured by the Chi-square test, is rejected.

The correlation, calculated from the four possible positions, provides us with a more synthetic estimation of the similarity in the preference for risk (Table 5)[14]. We obtain a statistically significant correlation (at the level of 1%) of 0.308. In column [2], we control for all the possible characteristics that can somehow influence the relationship between partners' preferences: the correlation remains unchanged. Since Kimball *et al.* (2009) use a similar measurement, we can conclude that homogamy in preferences, when measured in this way, is slightly stronger in the United States than it is in France.

---

[14]To be consistent with Kimball *et al.* (2009), we regress the log of risk tolerance measured by the lotteries and not the absolute value.

The results of the analysis by age categories suggest that correlation is already strong for young couples, but it increases when the man is more than 60 years old (0.38) even after controlling for individual and household characteristics (columns [4], [6] and [8]). There are several competing explanations. First, couples may become more similar with age (by influencing each other) and as a consequence the correlation would grow. Second, there may be a selection in place if couples whose members are similar in tastes are more likely to survive. In this case, the couples with opposite attitudes disappear from the sample when they get older. Third, it could be a cohort effect if the preferences of older cohorts are more homogeneous. These explanations have very different empirical and theoretical implications. Unfortunately, it is impossible to disentangle between these theories in the absence of panel data (or of multiple cross sections).

5.3.3 Self-evaluation scales

The scales measure preferences differently, inasmuch as they are self-evaluated measurements. So it is now the perception that individuals have of their own attitudes that serves as the measurement. Three parameters are evaluated: patience, risk aversion[15] and time preference.[16] Once again, we regress male partner's preferences on those of female partner to measure the presence of homogamy in the preferences studied.

Table 6 presents the correlations of these scales for our sample of 905 couples. In columns [2], [4], [6] and [8], we add control variables to our specification. Again, we observe similarity between spouses in terms of risk attitude. Although they are not entirely comparable with lotteries (because of differences in the possible amplitude of values), the correlation of scales is slightly weaker. For patience, the correlation is negative, significant at the level of 10%, suggesting that the impatience of one spouse is offset by the patience of the other. Lastly, we observe a positive and significant correlation of about 0.29 for time preference. The effect of age appears to vary from one dimension to an-

---

[15]However, the comparability remains limited, since the lotteries measure a relative aversion to risk (under the hypothesis of CRRA preferences).

[16]In a concern for comparability between the scales and the scores, we use the neutral term of "time preference" here to measure preference for the present.

other. While the correlation in attitudes to risk is rather stable, the similarity in time preferences increases with age. However, on top of the time/cohort/selection effects it is difficult to know whether this change is due to the influence of the spouse or to the subjective nature of the measurement, because of which an individual's perception of his attitude to time may change according to his age at the time of the survey (even if the attitude itself remains unchanged). The control variables do not seem to affect the results for risk and patience. However, for time preference, the effect of age is modified since the inverted U-shaped curve disappears.

Once again, it is possible to compare these results with the existing works. Using the same scales and (almost) similar controls[17], Dohmen *et al.* (2012) find a correlation between spouses of 0.35 (0.27 with controls). The degree of homogamy in attitudes to risk therefore appears to be slightly lower in France than in Germany.

5.3.4 Scoring

The last type of measurement used is scoring. Four parameters are studied here: family altruism, patience, risk aversion and time preference. In columns [2], [4], [6] and [8], we add control variables to our specification. Table 7 presents the relationship between the spouses' scores. For each of the parameters, we observe a positive and significant (at the level of 1% for each coefficient) correlation, but there are differences in level. Homogamy is very strong for risk attitude, with a correlation above 0.6. The similarity between spouses is slightly weaker for time preference (0.5) and family altruism (0.47) and weaker, but still largely positive, for patience (0.37).

Measured in this way, the preferences of spouses appear to be much more similar than they are when the measurement is based on one single question (lotteries or scales). This result is reassuring in that there is consistency between all three methods in the results obtained for the attitudes to risk and foresight. However, one noteworthy difference stands out in these analyses. For patience, the correlations vary widely between scales and scores. In this case, it seems that there is divergence between the two methods.

---

[17]See Appendix D.1

Appendix D.2 examines this question in detail.

The analysis of the effect of age on the degree of similarity between spouses appears to confirm the results obtained with the previous indicators. The similarity between spouses in terms of attitude to risk is somehow "set" at the time the couple is formed since the coefficients for men below 40 and for men above 60 is very close. For the parameters involving time, the man's age appears to have an effect that is more limited for altruism and preference for the present (increase by 0.1) than for patience. All in all, spouses' attitudes to risk do not seem to converge or diverge over time, and for the parameters involving time, there is some convergence, but this effect remains weak.

The control variables play a more substantial role for scores than for the standard measures. More specifically, the estimate for risk decreases from 0.635 to 0.443 when all the individual and household characteristics are controlled for. The size of this reduction is less important for the attitudes to time. The effect of age is more limited when all controls are added (except for patience). Appendix D.4 details the explanatory power of each control variable and shows that the effect of age on risk and patience is rather large. For time preference, income, occupation and religion are the most decisive control variables while family characteristics and religion are crucial for altruism.

An interesting robustness test consists in replicating the study regarding the total score on the different subscores computed for the different areas of life. 6 subscores have been built in order to consider separately each field: labour (and retirement), family, financial managing, health, consumption and others. Appendix D.3 presents the results. The correlation regarding the general attitude is confirmed by positive and significant relationship for all subscores. The correlation is around 0.45-0.5 for family, financial managing, heath and consumption but slightly lower for labour and others. This finding confirms the robustness of the similarity of preferences. It also provides evidence about the consistency of the scoring method.

The preliminary conclusion we can draw is that there is a positive assortative mating for risk and time attitudes. The similarity we observe with standard measures is consistent

with existing empirical evidence and it is more marked for scores. One of the contributions of this paper is to show that the homogamy of preferences is also valid for time. Moreover, the common experience shared by spouses has a limited effect since spouses' attitudes do not seem to significantly converge or diverge over time. Placing these results in perspective, we can see that homogamy in attitudes to risk and time is close to homogamy in terms of education but much stronger than similar estimates in dimensions such as labour income or inherited wealth, for which the correlations observed in France are of the order of 0.2 (Frémeaux, 2013).

The similarity between spouses remains high despite the addition of numerous controls regarding many (objective or subjective) dimensions: demography, human or physical endowments, social prestige, social origin, religious or familial beliefs. Nevertheless, the omitted variable bias may exist but it is likely to be limited. Compared with the existing literature (more precisely with Dohmen *et al.*, 2012), some control variables are missing: physical aspects (height), health status and ethnicity. None of these dimensions is available in our database but these variables play a minor role in Dohmen *et al.*'s estimates. The low part that we succeed in explaining means that for all the dimensions studied, it is chiefly preferences that explain the similarity between spouses. So for a given social origin or position (among other things), individuals tend to choose a partner who is very similar as regards attitudes to risk and time. The choice of partner in terms of preferences therefore appears to be primarily a matter of tastes.

The positive relationship for risk attitudes is at odds with the theoretical predictions by Chiappori and Reny (2006). The taste for similar attitudes between partners seems to overcome the potential gains to specialization arising from opposite attitudes. Moreover, it is also important to consider the intergenerational transmission of preferences to interpret this result. Arrondel (2013) provides evidence of a similarity between parents and children for risk and time preferences. Although substitutability between spouses' attitudes is possible[18], the existence of a transmission of preferences from parents to children makes the similarity between spouses of previous generations more likely notably

---

[18]The absence of homogamy would implied that intergenerational transmission is effected by only one of the two parents.

because people may prefer to have children with similar preferences to their own. As a consequence, this intergenerational motive creates an incentive to look for a partner with similar preferences. On the question of transmission, Dohmen *et al.* (2012) also show that mothers play a more important role than fathers, notably in the transmission of trust.

5.4   What are the implications in terms of wealth inequalities?

The interest of analysing the choice of spouse lies not only in estimating the homogamy, but also in examining its implications. The existing literature tackles this issue either at the individual level (Arrondel and Masson, 2013) or from an intergenerational perspective (Charles and Hurst, 2003; Dohmen *et al.*, 2012; or Arrondel, 2013). Evidence regarding the role of preferences at the household level are scarcer. The goal of this section is to provide a first descriptive analysis about the effect of preferences within the household.

Similarity between spouses causes a divide in the population in terms of attitudes, since for given individual characteristics, the spouses are very similar. The whole literature about life cycle theory identifies risk and time preferences as parameters for wealth accumulation. Moreover, the general aim of the exogenous feature of the scoring method is to identify the role of preferences[19]. In this section our goal is to know if the similarity or the difference between spouses' attitudes affects the household wealth. Indeed, whatever the direction of causality, homogamy tends to reinforce the vicious and virtuous circles by "preventing" individuals from balancing their attitude to risk or time against that of their spouse. In this section, there are two aims: to identify the effect of savings preferences on wealth[20] at the household level and to analyse the impact of spouses' attitudes on wealth.

To achieve the first aim, we sum the spouses' scores and compare the household wealth along the the distribution of preferences at the household level. Then we divide the population in four quartiles from to least virtuous households to the most. The

---

[19]One can also consider the reverse causality and think that wealth accumulation can have a direct effect on time and risk preferences. Becker and Mulligan (1997) provide a model indicating that wealth, among other factors, causes patience. However, the debate about the direction of the causality is beyond the scope of this paper.

[20]Here, wealth is defined as the overall value of the capital (financial or other, including their housing if relevant) that the interviewee possesses alone or jointly with another member of the household, without deducting their debts.

econometric specification is the following:

$$Wealth_i = \alpha + \beta_1 Quartile1_i + \beta_2 Quartile2_i + \beta_3 Quartile3_i + \gamma X_i + u \qquad (2)$$

where quartiles 1, 2 or 3 indicates the quartile to which the household belongs, the reference group the most virtuous households (quartile 4), β_1 represents the difference of wealth between quartile 1 and quartile 4 ; X represents a group of control variables: age, age^2, household income (log) and inherited wealth (dummy equal to one if at least one spouse has received a gift or a bequest). We consider the total (financial + non-financial) gross wealth, self-declared and measured at the household level..

Table 8 presents the wealth gap between the households belonging to the different quartiles of distribution for the four parameters. The main conclusion of this table is that the correlation between preferences and wealth fits expectations[21]. The least altruistic, patient, risk averse or farsighted households are in average poorer than the most virtuous couples. The gap between households with opposite attitudes depends on parameters. It is very large for foresight (180% between the bottom and the top quartiles) and rather small for short term patience (17%). The differences between opposite households is significant only when the controls are added. Not considering the potential correlations between preferences (a farsighted household can also be altruistic for instance) simplifies the reasoning but it may also limit the interpretation. The second interesting result relies in the imperfect correlation between attitudes and wealth. For patience and risk, we notice that the variation of wealth across quartiles is not perfectly linear. The intermediate quartiles are either richer than the top quartile (patience) or less poor than upper quartile (risk). This is a first evidence that the wealth decisions of couples are more complex than those of individuals. Indeed, a similar household score can hide different individual attitudes (spouse can be similar or have opposite preferences) and the interactions within the household play a role.

In order to understand this absence of linearity, the second step our methodology

---

[21]Arrondel and Masson (2007) do the same exercise at the individual level and provide similar results.

consists in focusing on the role of assortative mating on wealth. Do specialized couples perform better than couples with similar preferences? We divide men and women distributions of scores in two equal parts (bottom 50% and top 50% of the distribution) for each preference parameter and we compare household wealth for the four possible combinations: vicious couples (both spouses are in the bottom of their respective distribution), opposite couples with virtuous men (men at the top, women at the bottom), opposite couples with virtuous women, virtuous couples (both spouses in the top). We use the same specification as for household with the virtuous couples as the reference group.

Table 9 indicates that the most virtuous couples are not necessarily the richest. More specifically, for foresight only, we notice that the most virtuous couples are significantly richer than the other types of couples. For risk, the estimates do not indicate any preferable combination of preferences. Finally, for patience and altruism, the richest household are the combination of opposite attitudes: patient women and impatient men on the one hand; altruistic men and non-altruistic women on the other hand. Nevertheless the gap is only significant for patience. The lack of statistical power prevents us from coming to the conclusion that one combination of spouses leads to a significant wealth difference.

Nevertheless, despite the precautions we have to take in the interpretation of the results, this preliminary finding indicates that the interaction between spouses does play a role in wealth accumulation. The sum of spouses' preferences is not sufficient to understand the link between preferences and wealth at the household level. We also have to consider the differences of attitudes between spouses. The apparent inconsistency between Table 8 and Table 9 for risk, patience and altruism is explained by the fact that the intermediate quartiles can hide couples with opposite attitudes. It means that, for patience and altruism, the intra-household specialization can overcome the effect of virtuous attitudes. For risk, these effects seem to cancel each other out.

This result tends to complete the findings of Mazzocco (2004) or of Yilmazer and Lich (2013). It also shows the importance of considering household formation in terms of preferences. More importantly, this paper opens prospect for future research to identify the mechanisms leading to this result.

6 Conclusion

Homogamy has often been studied in terms of income, education and, to a lesser extent, inherited wealth. Works focusing on the role of savings preferences in the choice of spouse are much scarcer. The main empirical analyses bring to light a similarity between spouses in their attitudes to risk and time, contrary to the theoretical predictions. Moreover, recent research has demonstrated that there is intergenerational transmission of these same preferences.

This article has exploited an original survey that includes the standard measurements of preferences and also allows the development of a scoring method. The different empirical tests conducted in the article bring to light strong homogamy in attitudes to time and risk. The correlations for measurements of risk are of the order of 0.2-0.3 for the conventional measurements and 0.5 for the scores. The orders of magnitude are quite similar for time preferences. For family altruism, measured solely by scores, the correlation between spouses is 0.45. For all indicators, we do not observe a significant divergence or convergence of spouses' attitudes over time. Indeed, the similarity of spouses' attitudes to risk and time slightly grows with the age of spouses but the correlations are already positive for young couples. Furthermore, the similarity between spouses remains strong despite the addition of numerous controls (income, social position and origin, family status, education, religious opinions, etc.) meaning that for all the dimensions studied, it is mainly preferences that explain the similarity between spouses.

The other important contribution of this article, in relation to the existing literature, is that it highlights the consequences of these results in terms of wealth inequalities. Thus, altruism, patience, foresight and risk aversion are positively correlated to wealth (even after controlling for age, income and inherited wealth) when measured at the household level. But this correlation is not perfect and differences of preferences between spouses play a role. The richest households are not necessarily the one in which the spouses have the most virtuous preferences. For altruism and patience, sharing opposite preferences

can lead to higher levels of wealth. For risk, the estimates do not indicate any preferable combination of preferences.

This article opens up wide prospects for future research. It would be interesting to relate this work more closely to collective choice models, in order to study decisions taken by households in which the spouses have contrasting, or on the contrary very similar, attitudes. We could focus on the possession of assets and decisions affecting household wealth, but also on broader themes related to the decision-making process in the household.

Acknowledgments

References

ANDREONI, J., AND L. VESTERLUND (2001): ""Which Is The Fair Sex? Gender Differences In Altruism," *Quarterly Journal of Economics*, 116(1), 293–312.

ARRONDEL, L. (2013): "Are "daddy's boys" just as rich as daddy? The transmission of values between generations," *Journal of Economic Inequality (forthcoming)*.

ARRONDEL, L., AND C. GRANGE (1993): "Logiques et pratiques du mariage mondain : étude économétrique de l'homogamie dans les familles du Bottin Mondain," *Revue Française de Sociologie*, 24, 497–626.

ARRONDEL, L., AND A. MASSON (2007): *Inégalités patrimoniales et choix individuels : des goûts et des richesses*. Economica, Paris.

——— (2009): "How to measure the risk and time preferences of savers?," *Mimeo*.

——— (2013): "Measuring savers' preferences: how and why," *PSE Working Paper 2013-18*.

BARSKY, R. B., M. S. KIMBALL, F. T. JUSTER, AND M. D. SHAPIRO (1997): "Preference Parameters and Behavioral Heterogeneity: An Experimental Approach in the Health and Retirement Study," *Quarterly Journal of Economics*, 112(2), 537–579.

BECKER, G. S. (1973): "A Theory of Marriage: Part I," *Journal of Political Economy*, 81(4), 813–846.

——— (1974): "A Theory of Marriage: Part II," *Journal of Political Economy*, 82(2), 11–26.

——— (1981): *A treatise of the family*. Harvard University Press.

BERTAUX, D. (1977): *Destins Personnels et Structure de Classe*. Presses Universitaires de France, Paris.

BLACK, S. E., AND P. J. DEVEREUX (2011): "Recent Developments in Intergenerational Mobility," in *Handbook of Labor Economics*. Elsevier.

BORGHANS, L., A. L. DUCKWORTH, J. J. HECKMAN, AND B. TER WEEL (2008): "The Economics and Psychology of Personality Traits," *Journal of Human Resources*, 43(4), 972–1059.

BOZON, M., AND F. HÉRAN (2006): *La formation du couple.* Coll. Grands Repères, La Découverte, Paris.

BROWNING, M. (2000): "The saving behavior of a two-person household," *Scandinavian Journal of Economics*, 102(2), 235–251.

CHADWICK, L., AND G. SOLON (2002): "Intergenerational Income Mobility Among Daughters," *American Economic Review*, 92(1), 335–344.

CHARLES, K. K., AND E. HURST (2003): "The Correlation of Wealth across Generations," *Journal of Political Economy*, 111(6), 1155–1182.

CHARLES, K. K., E. HURST, AND A. KILLEWALD (2013): "Marital Sorting and Parental Wealth," *Demography (forthcoming).*

CHIAPPORI, P.-A. (1992): "Collective Labor Supply and Welfare," *Journal of Political Economy*, 100(3), 437–467.

CHIAPPORI, P.-A., AND P. J. RENY (2006): "Matching to share risk," *Working paper.*

DOHMEN, T., A. FALK, D. HUFFMAN, AND U. SUNDE (2012): "The Intergenerational Transmission of Risk and Trust Attitudes," *Review of Economic Studies*, 79(2), 645–677.

ERMISCH, J., M. FRANCESCONI, AND T. SIEDLER (2006): "Intergenerational Mobility and Marital Sorting," *Economic Journal*, 116, 659–679.

FERNANDEZ, R., N. GUNER, AND J. K. J (2005): "Love and Money: A Theoretical and Empirical Analysis of Household Sorting and Inequality," *Quarterly Journal of Economics*, 120(1), 273–344.

FRÉMEAUX, N. (2013): "Would you marry Paris Hilton or Oprah Winfrey? The role of inheritance and labor income in marital choices," *PSE working paper.*

GIRARD, A. (1964): *Le choix du conjoint. Une enquête psycho-sociologique en France.* INED - Presses Universitaires de France, Paris.

JELLAL, M., AND F.-C. WOLFF (2002): "Cultural Evolutionary Altruism: Theory and Evidence," *European Journal of Political Economy*, 18(2), 241–262.

JOUINI, E., C. NAPP, AND D. NOCETTI (2013): "Collective Risk Aversion," *Social Choice and Welfare*, 40(2), 411–437.

KIMBALL, M., C. R. SAHM, AND M. D. SHAPIRO (2009): "Risk Preferences in the PSID: Individual Imputations and Family Covariation," *American Economic Review*, 99(2), 363–368.

KNOWLES, J., AND A. POSTLEWAITE (2005): "Do Children Learn to Save From Their Parents?," Discussion paper.

KREMER, M. (1997): "How Much Does Sorting Increase Inequality ?," *Quarterly Journal of Economics*, 112(1), 115–139.

LAIBSON, D. (1997): "Golden Eggs and Hyperbolic Discounting," *Quarterly Journal of Economics*, 112(2), 9–52.

LAM, D. A. (1988): "Marriage Markets and Assortative Mating with Household Public Goods: Theoretical Results and Empirical Implications," *Journal of Human Resources*, 23(4), 462–487.

MAZZOCCO, M. (2004): "Savings, Risk Sharing and Preferences for Risk," *American Economic Review*, 94(4), 1169–1182.

NAKOSTEEN, R. A., O. WESTERLUND, AND M. A. ZIMMER (2004): "Marital Matching and Earnings: Evidence from the Unmarried Population in Sweden," *Journal of Human Resources*, 39(4), 1033–1044.

PENCAVEL, J. (1998): "Assortative Mating by Schooling and the Work Behavior of Wives and Husbands," *American Economic Review - Papers and Proceedings of the Hundred and Tenth Annual Meeting of the American Economic Association*, 88(2), 326–329.

PINÇON, M., AND M. PINÇON-CHARLOT (1997): *Voyages en grande bourgeoisie*. Presses Universitaires de France, Paris.

POWELL, M., AND D. ANSIC (1997): "Gender differences in risk behaviour in financial decision-making: An experimental analysis," *Journal of Economic Psychology*, 18(6), 605–628.

RAAUM, O., B. BRATSBERG, K. ROED, E. OSTERBACKA, T. ERIKSSON, M. JANTTI, AND R. NAYLOR (2007): "Marital Sorting, Household Labor Supply, and Intergenerational Earnings Mobility across Countries," Discussion paper.

SCHWARTZ, C. R., AND R. D. MARE (2005): "Trends in Educational Assortative Marriage from 1940 to 2003," *Demography*, 42(4), 621–646.

SMITH, J. P., J. J. MCARDLE, AND R. WILLIS (2010): "Financial Decision Making and Cognition in a Family Context," *Economic Journal*, 120(348), F363–F380.

SOLON, G. (1992): "Intergenerational Income Mobility in the United States," *American Economic Review*, 82(3), 393–408.

YILMAZER, T., AND S. LICH (2013): "Portfolio choice and risk attitudes: a household bargaining approach," *Review of Economics of the Household (forthcoming)*.

ZHANG, J., AND P.-W. LIU (2003): "Testing Becker's Prediction on Assortative Mating on Spouses' Wages," *Journal of Human Resources*, 38(1), 99–110.

ZIMMER, M. A. (1996): "Assortative Mating and Ethnicity in the Low Wage Population : An Examination of Spouses' Earnings," *Applied Economic Letters*, 3, 311–315.

Table 1: Descriptive statistics of preference measurements

	All			**Couples**			**Unmarried, divorced or widowed**		
	Men [1]	Women [2]	Difference [1 - 2]	Men [1]	Women [2]	Difference [1 - 2]	Men [1]	Women [2]	Difference [1 - 2]
Panel A: Lotteries									
L1	42.4%	46.3%	-3.9	45.0%	45.0%	0.0	35.3%	48.7%	-13.4
L2	26.0%	26.1%	-0.1	25.6%	27.3%	1.6	26.9%	24.0%	2.9
L3	22.9%	20.3%	-2.6	21.6%	20.8%	0.8	26.7%	19.4%	7.3
L4	8.7%	7.3%	1.4	7.8%	7.0%	0.8	11.1%	8.0%	3.1
Panel B: Scales									
Prudent/Risk-loving	4.9 (2.33)	4.5 (2.43)	0.4	4.8 (2.36)	4.4 (2.39)	0.4	5.1 (2.22)	4.8 (2.49)	0.3
Impatient/Patient	5.5 (2.61)	5.8 (2.54)	-0.3	5.5 (2.62)	5.7 (2.50)	-0.2	5.6 (2.60)	5.9 (2.62)	-0.3
Myopic/Farsighted	6.4 (2.62)	6.8 (2.51)	-0.4	6.6 (2.58)	7.0 (2.36)	-0.4	5.9 (2.85)	6.4 (2.74)	-0.5
Panel C: Scores									
Family altruism	6.4 (1.50)	6.6 (1.39)	-0.2	6.5 (1.47)	6.7 (1.38)	-0.2	6.0 (1.50)	6.4 (1.41)	-0.4
Impatience	4.2 (1.53)	4.0 (1.43)	0.2	4.2 (1.55)	3.9 (1.40)	0.3	4.2 (1.50)	4.0 (1.47)	0.2
Risk aversion	5.7 (1.39)	6.2 (1.27)	-0.5	5.8 (1.41)	6.3 (1.24)	-0.5	5.4 (1.31)	6.1 (1.31)	-0.7
Time preference	4.5 (1.39)	4.4 (1.31)	0.1	4.4 (1.37)	4.3 (1.31)	0.3	4.9 (1.35)	4.6 (1.30)	0.3
Observations		4731			3321			1410	

Standard deviation in parentheses. For the sake of comparability, the scores are normalised from 0 to 10.
Note 1: L1 = reject both lotteries; L2 = reject lottery 1, accept lottery 2; L3 = accept lottery 1, reject lottery 2; L4 = accept both lotteries.
Note 2: in panel B, individuals are asked to place themselves on a scale from 0 to 10. Prudence: 0 = you are very prudent, 10 = you like taking risks;
Patience: 0 = extremely impatient, 10 = extremely patient; Time preference: 0 = you take each day as it comes, 10 = you think of the future

Table 2: Opinion on homogamy

For a couple to endure, it is preferable for the two spouses to have...	All		Couples		Unmarried		Divorced		Widowed	
	M	W	M	W	M	W	M	W	M	W
The same income level	18%	20%	15%	14%	27%	26%	38%	37%	15%	29%
The same social background	55%	61%	55%	60%	48%	54%	71%	72%	69%	72%
The same political sensibility	29%	38%	28%	35%	33%	42%	49%	43%	22%	46%
The same religious or philosophical orientations	47%	54%	46%	53%	49%	54%	58%	57%	41%	63%
The same tastes	78%	80%	77%	77%	80%	81%	84%	86%	87%	88%
The same ethnic origin	36%	41%	37%	40%	28%	27%	50%	49%	48%	66%
Observations	2086	2557	1599	1671	347	446	81	222	59	218

Interpretation: in the whole sample, 18% of men think that for a couple to endure, it is preferable for the two spouses to have the same income level. For women, the proportion is 20% (first line).
Note: M: men and W: women

Table 3a: Income

M/F	Yes		No	
Yes	**64**		**69**	
	48.1%	*44.8%*	51.9%	*9.4%*
No	**79**		**661**	
	10.6%	*55.2%*	89.4%	*90.6%*

Chi-square = 112.69 (dl=1)

Table 3b: Social origin

M/F	Yes		No	
Yes	**406**		**102**	
	79.9%	*75.5%*	20.1%	*29.8%*
No	**132**		**241**	
	35.3%	*24.5%*	64.7%	*70.2%*

Chi-square = 177.53 (dl=1)

Table 3c: Political sensibility

M/F	Yes		No	
Yes	**184**		**84**	
	68.7%	*59.8%*	31.3%	*14.8%*
No	**124**		**484**	
	20.4%	*40.2%*	79.6%	*85.2%*

Chi-square = 187.93 (dl=1)

Table 3d: Religion or philosophy

M/F	Yes		No	
Yes	**321**		**122**	
	72.5%	*70.0%*	27.5%	*28.9%*
No	**138**		**299**	
	31.6%	*30.0%*	68.4%	*71.1%*

Chi-square = 145.71 (dl=1)

Table 3e: Tastes, leisures

M/F	Yes		No	
Yes	**589**		**94**	
	86.2%	*86.2%*	13.8%	*47.5%*
No	**95**		**105**	
	47.5%	*13.8%*	52.5%	*52.5%*

Chi-square = 130.76 (dl=1)

Table 3f: Ethnic origin

M/F	Yes		No	
Yes	**233**		**109**	
	68.1%	*65.5%*	31.9%	*21.3%*
No	**123**		**404**	
	23.3%	*34.5%*	76.7%	*78.7%*

Chi-square = 176.19 (dl=1)

Table 4: Lotteries - Matrices

Men/Women	L1		L2 - L3 - L4	
L1	**227**		**148**	
	60.6%	*64.7%*	39.4%	*33.3%*
L2 - L3 - L4	**124**		**296**	
	29.5%	*35.3%*	70.5%	*66.7%*

<u>Test:</u> Chi-square = 76.35 (dl=1)
<u>Note:</u> L1 = reject both lotteries; L2 = reject lottery 1, accept lottery 2; L3 = accept lottery 1, reject lottery 2; L4 = accept both lotteries.
Interpretation: (first line) out of the 794 couples who answered this question, there are 227 in which both spouses rejected both lotteries. 60.6% of the men who rejected both lotteries are in a couple with women who made the same choice; 64.7% of the women who rejected both lotteries are in a couple with men who made the same choice. The percentages for men are read horizontally, those for women (in italics) vertically.

Table 5: Lotteries - Correlations

Dependent variable: male partner	**All**				Age categories			
			Age < 40		**40 ≤ Age < 60**		**Age ≥ 60**	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Female partner	0.308***	0.299***	0.273***	0.322***	0.279***	0.295***	0.379***	0.364***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	794	794	233	233	355	355	206	206
R^2	0.089	0.185	0.070	0.380	0.072	0.266	0.144	0.497

p-value in parentheses, * $p<0.1$, ** $p<0.05$, *** $p<0.01$. The dependent variable is the preference of the male partner. Columns [1], [3], [5] and [7] present specifications without control variables; columns [2], [4], [6] and [8] with controls. See Appendix D.1 for the full list of control variables.

Table 6: Scales - Correlations

Dependent variable:	All		Age < 40		40 ≤ Age < 60		Age ≥ 60	
male partner	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Panel A: patience								
Female partner	-0.061*	-0.071*	-0.186***	-0.158*	-0.074	-0.027	0.004	-0.033
	(0.085)	(0.055)	(0.008)	(0.057)	(0.169)	(0.644)	(0.948)	(0.678)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	879	879	239	239	382	382	258	258
R^2	0.003	0.130	0.030	0.344	0.005	0.220	0.000	0.290
Panel B: risk								
Female partner	0.192***	0.185***	0.241***	0.265***	0.158***	0.136**	0.188***	0.211***
	(0.000)	(0.000)	(0.001)	(0.004)	(0.003)	(0.016)	(0.002)	(0.004)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	872	872	237	237	380	380	255	255
R^2	0.036	0.155	0.046	0.291	0.023	0.260	0.039	0.307
Panel C: time preference								
Female partner	0.294***	0.234***	0.127*	0.097	0.368***	0.242***	0.288***	0.278***
	(0.000)	(0.000)	(0.080)	(0.239)	(0.000)	(0.000)	(0.000)	(0.000)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	877	877	238	238	383	383	256	256
R^2	0.069	0.243	0.013	0.303	0.113	0.370	0.065	0.471

p-value in parentheses, * p<0.1, ** p<0.05, *** p<0.01. The dependent variable is the preference of the male partner. Columns [1], [3], [5] and [7] present specifications without control variables; columns [2], [4], [6] and [8] with controls. See Appendix D.1 for the full list of control variables. Interpretation: for each variable, individuals are asked to place themselves on a scale from 0 to 10. Prudence: 0 = you are extremely prudent, 10 = you like to take risks; Patience: 0 = extremely impatient, 10 = extremely patient; Time preference: 0 = you take each day as it comes, 10 = you think of the future

Table 7: Scores - Correlations

Dependent variable: male partner	All		Age < 40		40 ≤ Age < 60		Age ≥ 60	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Panel A: altruism								
Female partner	0.468***	0.413***	0.393***	0.358***	0.463***	0.407***	0.489***	0.346***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	905	905	242	242	391	391	272	272
R^2	0.193	0.330	0.144	0.424	0.175	0.364	0.231	0.611
Panel B: patience								
Female partner	0.368***	0.266***	0.217***	0.203***	0.324***	0.263***	0.396***	0.351***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	905	905	242	242	391	391	272	272
R^2	0.108	0.269	0.044	0.415	0.076	0.285	0.134	0.421
Panel C: risk								
Female partner	0.635***	0.443***	0.546***	0.481***	0.512***	0.450***	0.528***	0.498***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	905	905	242	242	391	391	272	272
R^2	0.289	0.465	0.257	0.527	0.199	0.375	0.198	0.533
Panel D: time preference								
Female partner	0.499***	0.426***	0.408***	0.418***	0.499***	0.433***	0.518***	0.434***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	905	905	242	242	391	391	272	272
R^2	0.232	0.372	0.149	0.475	0.230	0.390	0.269	0.524

p-value in parentheses, * $p<0.1$, ** $p<0.05$, *** $p<0.01$.The dependent variable is the preference of the male partner. Columns [1], [3], [5] and [7] present specifications without control variables; columns [2], [4], [6] and [8] with controls. See Appendix D.1 for the full list of control variables.

Table 8: Household preferences and wealth

Dependent variable: wealth (log)	Altruism		Patience		Risk		Time pref.	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Quartile 1	-0.590	-0.805**	-0.137	-0.171	-0.521	-0.851**	-2.252***	-1.881***
	(0.145)	(0.037)	(0.734)	(0.679)	(0.197)	(0.046)	(0.000)	(0.000)
Quartile 2	0.179	-0.207	0.528	0.405	0.224	-0.144	-1.428***	-1.290***
	(0.658)	(0.591)	(0.192)	(0.304)	(0.578)	(0.725)	(0.000)	(0.001)
Quartile 3	0.244	0.0273	0.623	0.678*	-0.664	-0.928**	-0.610	-0.738*
	(0.546)	(0.943)	(0.124)	(0.081)	(0.100)	(0.018)	(0.126)	(0.054)
Quartile 4	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Age		0.187***		0.162***		0.176***		0.157***
		(0.002)		(0.008)		(0.004)		(0.009)
Age^2		-0.00194***		-0.00173***		-0.00189***		-0.00171***
		(0.001)		(0.002)		(0.001)		(0.002)
Household income (log)		0.714***		0.705***		0.696***		0.655***
		(0.000)		(0.000)		(0.000)		(0.000)
Household inheritance (dummy)		0.984***		1.064***		1.075***		0.919***
		(0.001)		(0.000)		(0.000)		(0.001)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	905	905	905	905	905	905	905	905
R^2	0.006	0.110	0.006	0.110	0.007	0.112	0.039	0.129

p-value in parentheses, * p<0.1, ** p<0.05, *** p<0.01

Definition: Wealth = Financial + non-financial gross wealth

Note: the distributions of the scores go from the bottom (quartile 1) to the top (quartile 4) and work as follows: for risk, households at the top of the distribution are the most risk averse households; for patience, they are the most patient; for altruism, the most altruistic and for time preference, the most farsighted. For each parameter, the reference group is the household from the top quartile (i.e the most virtuous households).

Table 9: Couples' preferences and wealth

Dependent variable:	Altruism		Patience		Risk		Time pref.	
wealth (log)	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Non-virtuous couples	-0.102	-0.382	-0.262	-0.300	0.303	0.0990	-1.895***	-1.554***
	(0.775)	(0.266)	(0.477)	(0.416)	(0.377)	(0.781)	(0.000)	(0.000)
Opposite with	0.663	0.457	0.205	0.201	-0.0210	-0.253	-1.072**	-1.088***
virtuous men	(0.115)	(0.254)	(0.619)	(0.609)	(0.962)	(0.555)	(0.011)	(0.007)
Opposite with	0.194	0.102	0.884**	0.763*	0.172	-0.0821	-0.969**	-0.983**
virtuous women	(0.644)	(0.799)	(0.032)	(0.053)	(0.697)	(0.849)	(0.022)	(0.016)
Virtuous couples	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Age		0.177***		0.167***		0.185***		0.148**
		(0.004)		(0.006)		(0.003)		(0.014)
Age^2		-0.00185***		-0.00178***		-0.00190***		-0.00163***
		(0.001)		(0.002)		(0.001)		(0.004)
Household income (log)		0.716***		0.698***		0.709***		0.674***
		(0.000)		(0.000)		(0.000)		(0.000)
Household inheritance		1.015***		1.041***		1.024***		0.933***
(dummy)		(0.000)		(0.000)		(0.000)		(0.001)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
N	905	905	905	905	905	905	905	905
R^2	0.004	0.108	0.009	0.111	0.001	0.105	0.032	0.125

p-value in parentheses, * p<0.1, ** p<0.05, *** p<0.01

Definition: Wealth = Financial + non-financial gross wealth

Note: Vicious couples: both spouses have a vicious behavior; virtuous couples: both spouses have a virtuous behavior; opposite couples F: couples in which the female partner is more virtuous; opposite couples H: couples in which the male partner is more virtuous. The reference group is the virtuous couples.

Appendices

A   The methodology of scoring

In this appendix, we present in greater details the methodology of scoring and more especially the questions that we used. However, this article is "only" an application of this methodology to a specific topic. Arrondel and Masson (2013) fully describe the technical details and the philosophy of the scoring method. These papers also present the robustness tests that have been implemented to validate this scoring method (justifications regarding the choice and number of questions, robustness tests across the four surveys, internal consistency...). As a consequence, the goal of this appendix is to provide to the reader all the information needed to understand our work. In case the reader needs more specific information, we invite him to read this publication.

A.1   Basic principles

The PATER surveys have enabled us to develop a methodology, drawing on all these questions, to measure savers' preferences with regard to risk and time. This method, tried and tested on the different data, produces synthetic ordinal measurements, in the form of scores, of individuals' attitudes to risk, their preference for the present, and their family altruism. The multiplication of the data has allowed us to verify that these indicators are especially robust (in relation to the type of questions used, the characteristics and factors explaining the scores, their correlations and their effects on wealth, etc.). First developed on the data of the INSEE "Patrimoine 1998" survey and then the TNS-Sofres survey 2002, this method was repeated on the last three waves of the PATER survey, in 2007, 2009 and 2011.

The five surveys contain a large number of more qualitative questions aiming to measure individual preferences with respect to risk and time on the basis of lottery choices, but also according to attitudes, opinions and behaviour in different areas of life (health, work, leisure, family, consumption, retirement, etc.). Thus, there are 57 questions measuring

the attitude to risk, 27 for time-preference, 13 for family altruism and 16 for patience.

Let us give some examples of these questions. Concerning the attitude to risk, some of the questions are somewhat trivial, of the kind: "Do you take an umbrella with you when the weather forecast is uncertain?", or "Do you park your car illegally?", some are lottery choices, and others relate to consumption practices: "Do you ever go to see a show rather at random, at the risk of sometimes being disappointed?" or opinions: "Do you agree with the statement that 'marriage is a form of insurance'?" or: "Are you concerned by current health issues (AIDS, contaminated blood products, etc.)?". One of the questions of reference for identifying the time discount rate, for example, is: "Because of an unexpectedly heavy workload, your employer asks you to forgo a week's holiday this year, in return for x extra days' holiday next year. Would you agree?".

The first step consists in *a priori* allocation of each of the questions asked to one of the four fields of preference. Inevitably, there is some overlapping, concerning the distinction between short- and long-term, for example, and even more the fact that the future is both uncertain and far-removed from the present. Thus, questions like "Do you think that it is worth depriving yourself of some of life's pleasures to gain a few extra years of life?" and "To avoid health problems, do you watch your weight or your diet; do you practice a sport?" have been allocated both to the category of risk preferences and to the category of time preferences. Then, the marks are summed to obtain the final score.

Table A.1c presents the questions used to built the risk preference score; in Tables A.2b and A.3 we do the same thing for time preference and altruism, respectively. These tables also indicate the Cronbach's alpha which measures the internal consistency of scores. For all parameters, his score thus exhibits an acceptable degree of consistency.

A.2 Potential methodological issues

Like for the methodological aspects, the full details can be found in the list of publications listed above. In this section, we respond to the main criticisms that can be made with the scoring method.

Why choosing these specific questions and fields? What do we exactly measure with these scores?

This approach has three main characteristics that can be perceived as criticisms. Indeed, the scoring method follows a piecemeal (i), empiricist (ii) and agnostic (iii) approach.

- (i) The choice of questions and the life domains to be covered by these questions is in part arbitrary but also contingent to the type of behaviour to be explained.

- (ii) For the four preferences , the number of selected questions is a purely empirical issue. In other words, statistical analysis will alone tell if the global score show a sufficient degree of internal consistency or if it preferable to introduce different sub-scores per domain.

- (iii) The third characteristic of the scoring method is to be agnostic regarding what the scores precisely measure. More specifically, we can wonder if the attitude towards risk represent rational or irrational attitudes. Moreover, what theoretical preference parameter would be this score most associated: risk aversion, prudence, loss aversion, pessimism?

We are fully aware that no one question is by itself satisfactory and can bring accurate information of a given preference. If a question is targeted on theory, it can appear to be too abstract and generates too much noise. On the contrary, if it is more practical, its interpretation remains too vague. In some situations, it is not possible to determine which preference parameter is precisely revealed by the question under consideration. Moreover, some questions show, alone, little explanatory power of wealth. For a question like "Do you often park in a forbidden zone?", confounding factors can introduce some noise in the answer. The method of aggregation might solve all these problems. Indeed, even if there is no such thing like a central limit theorem that would allow us to treat framing effect, endogeneity biases or other types of error, aggregation eliminates, globally and ex ante, the biases and parasitic measurement errors (contrary to measurement like scales or lotteries). Regarding (iii), this aggregation of answers also affects the interpretation of

the scores. The exact parameter measured (risk aversion or prudence for instance) is not a crucial issue as long as the departure from expected utility and homothetic preferences is limited: if Pierre is more risk-averse than Paul, then he should be also more prudent most of the time.

Are the scores internally consistent?

The value of each score is the sum of the marks obtained in the coding procedure. Our basic assumption is that most questions affected to risk or time preferences have a common component and that the summation of these questions form a coherent whole.

Several precautions are taken in order to guarantee the internal consistency of scores. First, we eliminate the questions that show a too small correlation with the sum of all other items. Only few questions have to be dropped. Then in order to test the internal consistency of the scores we compute the Cronbach coefficient alpha. This coefficient is equal to:

$$\kappa = \frac{n}{n-1}(1 - \sum_{i-1}^{n} \frac{\sigma_i^2}{\sigma^2})$$

where n is the number of questions introduced in the score, σ^2 the total variance of the score and σ_i^2 the variance of question i.

This coefficient is close to 0.7 for risk, which is the threshold of totally credible consistency for psychometricians, and lower but still acceptable for time preference (around 0.5). It expresses the greater difficulty in identifying this parameter of preference

Other indirect validations developed such as the principal component analysis as well as the correlations between "sub-scores" provide evidence of the quality of the score. Arrondel and Masson (2013) compare the results of the five waves (1998-2002-2007-2009-2011) and demonstrate the stability of scores across surveys. The content of the scores is constant over time: the time correlations (across survey) for scores is around 0.7, much stronger than scales or lotteries; the rankings of the questions that the most relevant in explaining the scores are very similar from one survey to another.

How can we say that scores are superior to standard measures?

The success of the scoring method can be judged on two different grounds: the quality itself of the measure and the explanatory power of scores on wealth-related behaviours.

First, four scores appear sufficient to capture the vast array of behaviours towards risk and time. Moreover, compared with lotteries and scales, each score has a nice dispersion and a nice histogram (see Section C). Scales suffer from a well-known problem of anchoring in the middle of the interval. The lottery measurement takes only four values and in most studies, including this paper, more than half of the sample are in the most risk-tolerant group (those who refuse gambles 1 and 2).

The second way of evaluating scores is to see how they are explained by household's characteristics. The explanatory power of the scores regressions is much higher than the one of scales or lotteries. Moreover, the effects of household's characteristics (like age, gender or marital status) on scores make sense given what we know from theory. Furthermore, Arrondel and Masson (2007) show that scores are better at explaining risky activities like playing games or self-declared preference for risky investment that the standard measure of risk preference.

The strength of the scoring method lies in the *ex ante* correction of the noise a psychometric procedure. The alternative consists in using econometric procedures to provide an *ex post* correction (like Kimball *et al.*, 2009). The two methods lead to convergent conclusions regarding the similarity of preferences within the household (between spouses or between parents and children). At the same time, each method has drawbacks: *ex ante* correction requires a large number of questions while *ex post* correction requires long panel data.

Table A.1a: Response frequencies and score construction: risk aversion

Nature of the question	Risk-loving (%) (-)	Risk-averse (%) (+)	Neutral (%)
Consumption/leisure/travel			
Parks in no-parking zones (Yes = -1; No = +1; Other = 0)	27.7	61.7	10.6
Health/health risks/life expectancy			
Precautionary visits to the doctor or dentist (Yes = +1; No = 0)	38.2	60.2	
Non-compulsory vaccinations (No = -1; Yes = +1; Other = 0)	15.8	41,0	43.2
Wears seatbelt, respects speed limit (No = -1; Yes = +1; Other = 0)	2.1	12.2	85.7
Sacrifice today in order to live longer (No = -1; Yes = +1; Other = 0)	9.5	9.6	80.9
Careful to keep in shape (No = -1; Yes = +1; Other = 0)	8.8	7.9	83.3
Booster vaccination for ones children (Yes = 0; No = -1)	5.0	95.0	
Work/income/career			
Looks for novelty and responsibility in a job (Yes = -1; Other = 0)	19.4	80.6	
Has taken risks in their career (Yes = -1; No = 0)	37.3	62.7	
Leisure behaviour represents a potential risk for career (Yes = -1; No = 0)	9.5	90.5	
Risky job changes (Yes = -1; No = 0)	30.7	69.3	
Recommends that friends and family take risks in their careers (Yes = -1; No = +1; Other = 0)	8.8	7.9	83.3
Would change economic sector in the face of substantial economic risk	50.0	50.0	

Table A.1b: Response frequencies and score construction: risk aversion (ctd)

Nature of the question	Risk-loving (%) (-)	Risk-averse (%) (+)	Neutral (%)
Retirement			
Worried that might end their life in a retirement home (Yes = +1; No = 0)	66.5	33.5	
Saves in order to avoid ending their life in a retirement home (Yes = +1; No = 0)	78.5	21.5	
Would prefer lower social security contributions against a less generous pension (Yes, without precautionary saving = -1; No, too risky = +1; Other = 0)	1.4	28.7	69.9
Family/Intergenerational Transfers			
"Marriage is an insurance policy" (No = -1; Yes = +1; Other = 0)	17.4	13.7	68.9
"Choosing a partner is risky" (No = -1; Yes = +1; Other = 0)	4.9	23.1	72.0
"You can't sign up for marriage without testing it first" (No = -1; Yes = +1; Other = 0)	8.5	24.4	67.1
"Having children is an insurance policy for ones old age" (No = -1; Yes = +1; Other = 0)	80.2	19.8	
"The decision to have children is a risky one" (No = -1; Yes = +1; Other = 0)	18.5	12.7	68.8
The decision to have children is a lifelong commitment (No = -1; Yes = 0)	5.0	95.0	
Wishes to protect their spouse financially in case of their own death (No = -1; Yes = 0)	6.8	93.2	
Constantly keeps watch over their children (No = -1; Yes = +1; Other = 0)	10.9	33.0	56.1
Would encourage their children to take risks (Yes, definitely = -1; No = +1; Other = 0)	2.6	28.9	68.5

Table A.1c: Response frequencies and score construction: risk aversion (end)

Nature of the question	Risk-loving (%) (-)	Risk-averse (%) (+)	Neutral (%)
Gambling			
Bets on horses (very or fairly often=-1, rarely=0, never=1)	4.5	80.4	15.1
Plays the lottery (very often=-1, fairly often or rarely=0, never=1)	8.9	61.2	29.9
Plays slot machines (very or fairly often=-1, rarely=0, never=1)	1.2	77.4	21.4
Bets at the casino (very or fairly often=-1, rarely=0, never=1)	0.3	90.2	9.5
Other			
Buys transport tickets well in advance (No = -1; well in advance = +1; a little in advance = 0)	8,0	19.3	72.7
Turns up well in time for trains and planes (No = -1; well in time = +1; a little in advance = 0)	4.2	20.1	75.7
Takes precautions in case the weather turns out nasty (No = -1; Yes = 0)	42.7	55.9	1.4
Cronbach's alpha	0.68		

Source: PATER 2007

Table A.2a: Response frequencies and score construction: time preference

Nature of the question	Lives from (%) day to day (-)	Farsighted (%) (+)	Neutral (%)
Consumption/leisure/travel			
Wishes to enjoy windfalls as quickly as possible (Yes = +1; No = 0)	24.7	75.3	
Buys transport tickets well in advance (No = -1; well in advance = +1; a little in advance = 0)	8.0	19.3	72.7
Turns up well in time for trains and planes (No = -1; well in time = +1; a little in advance = 0)	4.2	20.1	75.7
Would put holidays off for one year in order to increase their duration (No = +1; Yes, with at most only one or two more days= -1; Other = 0)	21.4	17.5	61.1
Health/health risks/life expectancy			
Sacrifice today in order to live longer (No = -1; Yes = +1; Other = 0)	9.5	9.6	80.9
Plays sport or goes to the gym (Regularly= -1; Never= +1; Occasionally= 0)	54.4	25.9	19.7
Work/income/career			
Favours free time in choice of job (Yes = 1; No = 0)	31.5	68.5	
Would prefer National Service to be as short as possible, rather than a longer service which is spread out over time(No = +1; Yes = 0)	39.7	60.3	
Retirement			
Worried that might end their life in a retirement home (Yes = +1; No = 0)	66.5	33.5	
Would have trouble in paying for a retirement home (Yes if saved more= -1; Yes without saving more= +1; No = 0)	47.0	11.4	41.6
Would prefer early retirement against a lower pension after the age of 60 (No = -1; Yes = +1; Other = 0)	1.4	86.3	12.3

Table A.2b: Response frequencies and score construction: time preference (ctd)

Nature of the question	Lives from (%) day to day (-)	Farsighted (%) (+)	Neutral (%)
Family/Intergenerational Transfers			
"Having children is an insurance policy for ones old age" (No = -1; Yes = +1; Other = 0)	80.2	19.8	
The decision to have children is a lifelong commitment (No = -1; Yes = 0)	6.5	93.5	
Wishes to protect their spouse financially in case of their own death (No = -1; Yes = 0)	6.8	93.2	
My parents tried to teach me to save money (Yes=-1; No=+1; Other=0)	22.9	75.4	1.7
We should teach children and teenagers how to save money (Yes = -1; No = +1; Other=0)	6.4	90.9	2.8
Other			
Aware of environmental problems (No = +1; Other = 0)	20.8	79.2	
Ready to sacrifice their standard of living to leave the world in good shape (Yes, very much so = -1; No = +1; Yes, to an extent = 0)	15.4	42.3	42.3
Cronbach's alpha	0.56		

Table A.3: Response frequencies and score construction: altruism

Nature of the question	Egoist (%) (-)	Altruist (%) (+)	Neutral (%)
The decision to have children is a lifelong commitment (No = -1; Yes = 0)	5.0	96.6	1.4
Wishes to protect their spouse financially in case of their own death (No = -1; Yes = 0)	6.8	93.2	-
Should leave to our children as much as we received ourselves (Yes = +1; No = -1; Other = 0)	72.4	25.2	2.4
Inheritance behaviour inspired by that of my parents (Yes = +1; No = -1)	52.9	47.1	
Parents should spend their money as they wish, even if it means leaving no legacy (Yes = +1; No = -1; Other = 0)	87.9	11.1	1.0
Thinks that is a good thing that parents make sacrifices for their children (Yes = +1; No = -1; Other = 0)	92.4	6.3	1.3
Would favour lower inheritance taxes on transmission to blood relatives (Yes = +1; No = -1; Other = 0)	5.5	85.9	8.6
Is in favour of the freedom to bequeath (Yes = +1; No = -1; Other = 0)	46.5	52.1	1.3
Cronbach's alpha	0.45		

Source: PATER 2007

B General descriptive statistics

Table B.1: Characteristics of households

Number of children	1.98
Children living at home	1.04
Family status	
Marriage	86.2%
Cohabitation	13.8%
Housing situation	
Home-owner (or home-buyer)	77.5%
Tenant (council flat)	7.5%
Tenant (other)	11.6%
Rent-free tenants	2.7%
Other	0.6%
Comparison of wealth on first meeting:	
Man > Woman	21.1%
Man < Woman	19.6%
Man = Woman	19.1%
Man = Woman = 0	40.2%
Who holds the purse strings?	
Man	25.4%
Woman	33.8%
Both	40.7%
Existence of a joint account	86.2
Overall wealth of household	
Less than 8000€	8.1%
Between 8000 and 14999€	4.2%
Between 15000 and 39999€	5.0%
Between 40000 and 74999€	5.0%
Between 75000 and 149999€	18.0%
Between 150000 and 224999€	22.9%
Between 225000 and 299999€	13.2%
Between 300000 and 499999€	14.9%
Between 450000 and 749999€	6.4%
More than 750000€	2.3%
Net monthly income of the household	
Less than 300€	0.2%
Between 300 and 600€	0.4%
Between 601 and 900€	0.6%
Between 901 and 1200€	4.9%
Between 1201 and 1500€	8.6%
Between 1501 and 1900€	15.8%
Between 1901 and 2300€	17.4%
Between 2301 and 2700€	13.3%
Between 2701 and 3000€	10.8%
Between 3001 and 3800€	15.3%
Between 3801 and 5300€	9.0%
Between 5301 and 6900€	2.9%
More than 6901€	0.9%
Observations	905

Field: All households for which we have information about both spouses.
Source: PATER 2007

Table B.2: Assets

Types of financial investment:	
None	11%
CEL, PEL (home-purchase saving account)	50%
Livret A, livret bleu (tax-free saving accounts)	63%
Other savings accounts	31%
PERP (pension savings plan)	6%
PER, PEP (pension savings plan)	12%
Assurance-vie (investment/insurance plan)	45%
Life insurance	15%
Complementary retirement savings plan	10%
French-listed shares	20%
Foreign-listed shares	5%
Bonds	6%
SICAV or FCP (mutual funds)	15%
PEE, FCPE (employee savings plans)	18%
PEA (equity savings plan)	24%
Value of financial investments	
Less than 1500€	12%
Between 1500 and 2999€	9%
Between 3000 and 7999€	16%
Between 8000 and 14999€	14%
Between 15000 and 29999€	14%
Between 30000 and 44999€	10%
Between 45000 and 74999€	10%
Between 75000 and 149999€	8%
More than 150000€	6%
Share of these investments...	
Considered risky	11%
If > 0	21%
Invested in pension schemes	12%
If > 0	28%
Observations	905

Field: All households for which we have information about both spouses.
Source: PATER 2007

Table B.3: Individual characteristics

	Man	Woman
Age	51.5	49.2
Divorced in the past	8.7%	6.9%
Current professional activity:		
Employed	62.6%	55.6%
Job seeking	1.9%	4.9%
Inactive having worked in the past	33.0%	23.8%
Inactive having never worked	2.6%	12.5%
Other	0.0%	3.2%
Individual yearly income:		
Less than 8000€	6.4%	26.1%
Between 8000 and 11999€	12.6%	16.0%
Between 12000 and 15999€	16.6%	16.6%
Between 16000 and 19999€	21.1%	12.3%
Between 20000 and 29999€	25.9%	17.2%
Between 30000 and 39999€	10.7%	3.6%
More than 40000€	6.7%	1.9%
No reply	0.1%	6.3%
Inheritance or gifts received	41.9%	43.5%
Social origin (subjective):		
Well-off	9.1%	12.5%
Modest	16.7%	18.0%
Neither	74.2%	69.4%
Level of education attained:		
Primary	10.9%	9.5%
Secondary	7.0%	9.2%
Vocational certificate (CAP, BEP)	32.6%	25.2%
High school studies	21.2%	26.4%
Higher vocational certificate (IUT, BTS)	11.7%	11.6%
Higher education 1st cycle	3.9%	6.4%
Higher education 2nd cycle	5.7%	8.1%
Higher education 3rd cycle	7.1%	3.7%
SPC (7 categories:)		
Farmers	3.8%	1.8%
Tradesmen, shopkeepers, entrepreneurs	7.1%	3.1%
Liberal professions	17.3%	7.4%
Intermediate professions	21.8%	20.1%
Employees	15.6%	44.3%
Unskilled workers	33.0%	8.1%
Inactive	1.4%	15.3%
Observations	905	

Field: All households for which we have information about both spouses.
Source: PATER 2007
Remark: For the socio-professional category, retired people are classified in the most recent category they were in before retiring.

C Distributions of risk and time preferences

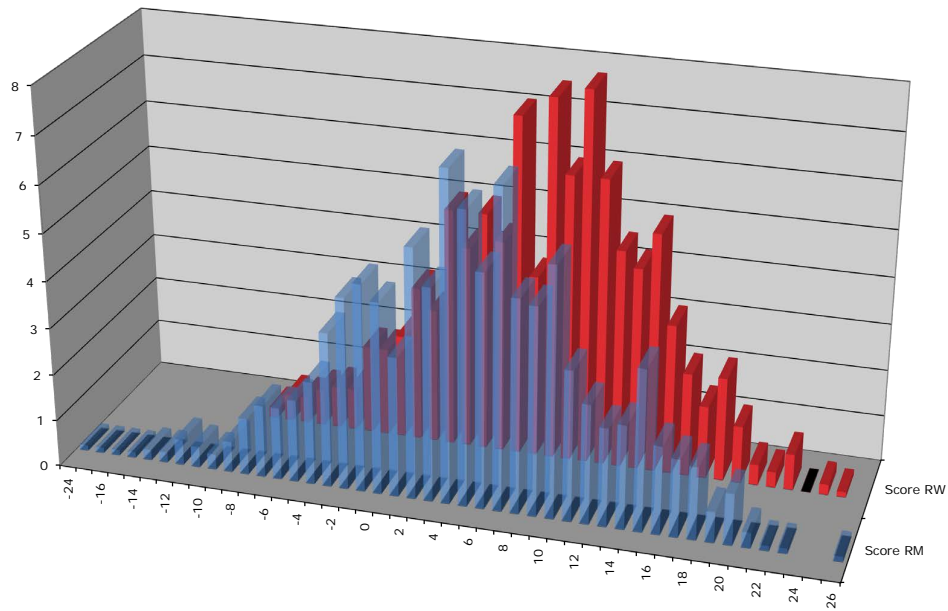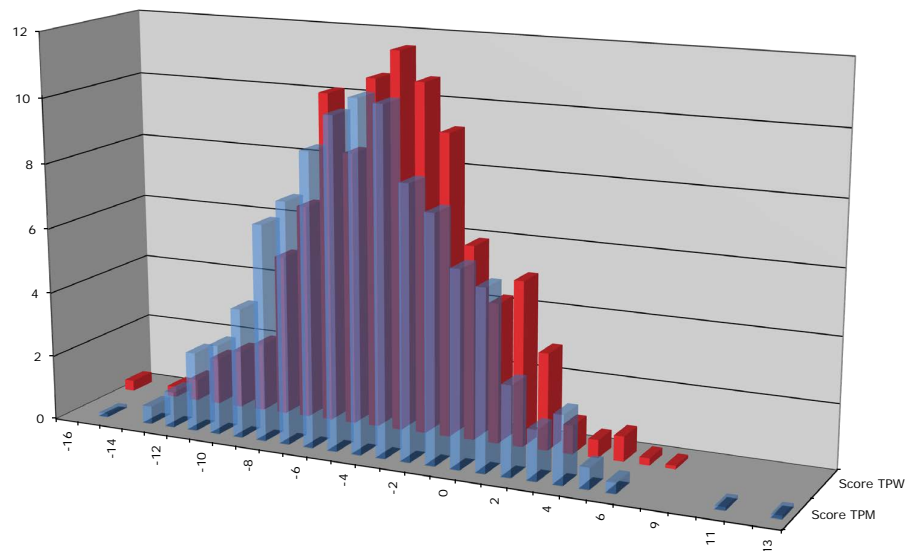Figure 1: Distribution - Attitudes to risk

Figure 2: Distribution - Time preferences

Definition: the distribution for men is in blue; the distribution for women is in red.

Table C.1: Preference measurements - distributions

	Lotteries	Scales			Scores			
		Risk	Patience	Foresight	Altruism	Impatience	Risk	Time pref.
Male	0.097***	-0.036	-0.055	-0.035	-0.170***	0.145***	-0.497***	0.138***
	(0.001)	(0.615)	(0.475)	(0.642)	(0.000)	(0.000)	(0.000)	(0.000)
Age	0.000	0.009***	0.021***	0.022***	0.003**	-0.027***	0.028***	-0.013***
	(0.964)	(0.000)	(0.000)	(0.000)	(0.026)	(0.000)	(0.000)	(0.000)
Married	0.028	-0.208	-0.043	0.525***	0.008	0.013	0.204***	-0.461***
	(0.684)	(0.177)	(0.795)	(0.001)	(0.930)	(0.881)	(0.007)	(0.000)
Non-married	0.172**	-0.014	0.126	0.150	-0.242**	0.178	-0.234**	-0.260***
	(0.041)	(0.048)	(0.944)	(0.466)	(0.030)	(0.107)	(0.014)	(0.009)
Single	0.199**	0.169	0.273	-0.031	-0.628***	-0.028	-0.040	-0.060
	(0.014)	(0.359)	(0.165)	(0.876)	(0.000)	(0.793)	(0.659)	(0.531)
Divorced	0.017	0.350*	0.212	-0.285	-0.214*	0.170	-0.157	-0.290***
	(0.850)	(0.083)	(0.324)	(0.183)	(0.064)	(0.140)	(0.114)	(0.005)
Constant	1.81***	4.33***	4.61***	5.25***	6.58***	5.27***	4.75***	5.19***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
R^2	0.01	0.01	0.02	0.04	0.04	0.11	0.21	0.06
Observations	4368	4616	4625	4619	4731	4731	4731	4731

P-value between brackets; * p<0.1, ** p<0.05, *** p<0.01

For the scales and scores, the dependent variable is expressed as an absolute value. For the sake of comparability between scores and scales, we have normalised the scores from 0 to 10 (as in table 1). For marital status, the reference category is widowed.

Interpretation: the coefficient -0.170 (1st row, 4th column) signifies that, for family altruism, the men's score is, on average, 0.17 points lower than that of women (when the score has been normalised from 0 to 10).

D Empirical strategy and supplementary results

D.1 The construction of control variables

In this appendix, we provide full information regarding the control variables and their construction. The full list of individual control variables is the following: age, income, occupation (7 positions: farmer; tradesman, shopkeeper or entrepreneur; liberal profession; intermediate profession; employee; unskilled worker; inactive), education (8 positions: primary, secondary, vocational certificate, high school studies, higher vocational certificate, higher education 1st cycle, higher education 2nd cycle, higher education 3rd cycle), inheritance/gifts received (dummy), occupation of the father (5 positions: farmer; tradesman, shopkeeper or entrepreneur; liberal profession; intermediate profession; employee and unskilled worker), existence of past divorce, religious beliefs ("Do you believe in any religion?"), religious education ("In which religion have you been raised?": Catholic, Anglican, Protestant, Orthodox Christian, Jewish, Muslim, other or none), opinion on homogamy and on marriage and probable divorce (see below).

Some variables are measured at the household level: presence of children, inequality between spouses (see below), duration of relationship before cohabitation (less than three months, between 3 and 6 months, between 6 and 12 months, between 1 and 2 years, between 2 and 5 years or between 5 and 10 years). Given the absence of precise geographical information, for each specification with control variables we control for the size of the city of residence: rural area, between 2,000 and 5,000 inhabitants, between 5,000 and 10,000, between 10,000 and 20,000, between 20,000 and 50,000, between 50,000 and 100,000, between 100,000 and 200,000, more than 200,000 or parisian urban area.

We can classify the variables we use into several categories: demography, human or physical endowments, social prestige, social origin, religious or familial beliefs. These controls cover most of the dimensions that can somehow influence the choice of spouse on top of preferences. By controlling for these variables, we assume that the correlation of residuals is the relevant relationship we want to measure. This list of control follows the econometric specification used by Dohmen et al. (2012). Some variables are missing in our data: height, health status and ethnicity. However, Dohmen and his coauthors do not

provide full details about the effect of these variables on the relationship between spouses.

Inequalities between partners:

One category of variables is used to describe the degree of inequality between spouses. Several dimensions are studied: income, social origin, wealth at the time of meeting and age. For income, a couple is considered unequal if the man is in the top decile of the income distribution for men and the woman is below the median of the income distribution for women (or vice versa). For social origin, we consider the origin of individuals to be well-off if their father is (or was) a skilled tradesman, shopkeeper or entrepreneur, a liberal professional, executive or in an intermediate profession. If this variable does not have the same value for both partners, then they have different social origins. We also compare the wealth at the time of meeting by using use a question asking individuals about their comparative wealth at the moment of their meeting. There are four possible replies: larger, smaller, equal or not applicable (no wealth). Thus, the couple is considered unequal if one of the first two answers is chosen. Lastly, if the age difference between the two partners is more than 5 years, then the couple is considered unequal.

Opinion on homogamy:

To synthesise the opinion on homogamy, we return to the questions used in section 5.2. We consider that a person has a positive opinion of homogamy if they think that it is preferable that the two partners have the same income level, the same social origin and the same tastes.

Marriage perceived as risky:

To construct this variable, we use a series of questions addressing individuals' opinions about the family. We construct three binary variables, (one for each question). For the first variable, we consider that marriage is perceived as risky if the individual does not agree that marriage represents "security" (individual, emotional, etc.) (1st variable); if the individual thinks that choosing one's partner is not without risk (2nd variable); or if,

before getting married, one should live together for a trial period (3rd variable).

Probable divorce:

To calculate the possibility of future divorce, we use a series of questions addressed to the interviewees. They are asked to indicate, on a scale of 0 to 10, the probability that a given event will occur in the next five years. The variable "Probable divorce" is equal to 1 if the interviewee situates between 5 and 10 the probability for the event "experiencing a separation or divorce".

D.2 How are partners perceived?

One of the particularities of the results is that the correlation between spouses in terms of patience varies according to the indicator used. With self-evaluation scales, the correlation is negative (Table 6), whereas it is positive when we use scores. The aim of this appendix is to explain where this difference comes from and why it can be partly explained by the relevance of the scale as an appropriate measure of preferences (at least as far as patience is concerned).

Firstly, there is a factor that reduces the importance of this divergence between the two results. Patience is the parameter for which we obtain the weakest correlation with the scores. So although differences in level appear, scales and scores still tend to share the same hierarchy of correlations. Secondly, it appears that patience, much more than prudence or foresight, is poorly taken into account by scales. To demonstrate this, we use a series of questions that inform us about the perception by one spouse of their partner's attitudes to risk and time. Concretely, for each parameter measured by the scales (prudence, patience and time preference), we have two questions: "on a scale of 0 to 10, where would you place yourself?" and "on the same scale, where would you place your partner?" These two questions, addressed to both spouses, allow us to measure the correlation between the way the individual perceives him/herself and the way their partner perceives them. For more clarity, we designate E_H the judgements that men make on themselves via the scales and $E_H{*}$ the judgements that women make on their respective partners. We carry out the same operation for women, with E_F denoting their self-evaluations and $E_F{*}$ the judgement of their partners. Table D.1 presents the results of these correlations for each parameter.

The main information that we can draw from the first part of this table is that individuals are not very good judges of their partners' attitudes, although women appear to do better than men. More importantly for our purpose, we can see that it is for the parameter of patience that we obtain the weakest correlation. In the second part of the table, we observe the individuals' perception of homogamy. When compared with the results in table 11, it can be seen that individuals tend to believe that their partners

resemble them more than we actually observe in reality. This observation is also valid for patience, where we move from a negative correlation (-0.06) to a positive correlation (+0.10). Thus, we can see that the subjective nature of this indicator tends to produce noticeably different results according to the identity of the "judge". All in all, this divergence in results partly explains the difference between scales and scores, notably as regards the parameter of patience.

Table D.1: Preferences and partner's perception

Correlations	Patience [1]	Risk [2]	Time pref. [3]
$\rho\ E_H\ E_H{}^*$	0.238***	0.323***	0.445***
$\rho\ E_F\ E_F{}^*$	0.168***	0.228***	0.402***
$\rho\ E_H\ E_F{}^*$	0.097***	0.594***	0.551***
$\rho\ E_F\ E_H{}^*$	0.112***	0.588***	0.557***
Observations	869	861	870

* p<0.1, ** p<0.05, *** p<0.01
Interpretation: the first line in the table presents the correlation between the score (on the scale of 0 to 10) that the man gives himself, E_H, and the score that his partner gives him, $E_H{}^*$; in the second line, the roles are reversed ($\rho\ E_F\ E_F{}^*$). The third line measures the correlation between the score that the man gives himself, E_H, and the score he gives his partner, $E_F{}^*$; in the fourth line the same operation is repeated for women ($\rho\ E_F\ E_H{}^*$).

D.3 Correlations between risk subscores

For the risk preference, 6 subscores have been built in order to consider separately each field: labour (and retirement), family, financial managing, health, consumption and others. The more limited number of questions regarding the other parameters (time preference, patience and altruism) does not allow us to replicate the same analysis.

We use the same specification as for the global score in order to check if the correlation regarding the general attitude to risk is consistent with the correlation for these fields. Table D.2 provides the raw correlation (without control variables). We can note that the correlation regarding the general attitude is confirmed by positive and significant relationships for all subscores. The correlation is around 0.45-0.5 for family, financial managing, heath as well as consumption and slightly lower for labour and others. This result demonstrates the robustness of the relationship between spouses' attitudes but also the consistency of the scoring method. Arrondel and Masson (2009) provide the same kind of analysis by estimating the correlation between the respondents' subscores and global score to check the internal consistency of the scores.

Table D.2: Subscores - Correlations

Dependent variable: male partner	Global [1]	Labour [2]	Family [3]	Finance [4]	Health [5]	Consumption [6]	Others [7]
Female partner:							
Global	0.635*** (0.000)						
Labour		0.317*** (0.000)					
Family			0.451*** (0.000)				
Finance				0.468*** (0.000)			
Health					0.421*** (0.000)		
Consumption						0.481*** (0.000)	
Others							0.308*** (0.000)
Observations	905	905	905	905	905	905	905
R^2	0.289	0.093	0.184	0.197	0.133	0.190	0.089

p-value in parentheses, * $p<0.1$, ** $p<0.05$, *** $p<0.01$. The dependent variable is the preference of the male partner.

D.4 The decomposition of scores

In this section, the aim is to identify the role of control variables in the comparison of spouses. We focus on scores only because this measurement is the most affected by control variables. Table D.3 presents the decomposition of correlations for the four dimensions studied. For the attitude to risk, the correlation obtained without any control is 0.635. In other words, if the man is twice as risk-averse as the average, then his spouse will herself be 63.5% more risk-averse than the average for women. The raw correlations for the other parameters are all significant (at 1%) and vary between 0.37 and 0.5. The part explained by the different specifications is relatively low, since we explain, at the most, 30% of the relationship between spouses.

For family altruism, we observe a raw correlation of 0.47. With the introduction of individual characteristics, the coefficient is equal to 0.41. Thus, all the control variables taken together do not explain more than 12% of the elasticity between spouses. Two categories of variables explain most of this reduction: the family situation (presence of children and divorce of (at least) one partner) and religious beliefs/education.

Spouses are less similar in terms of patience, but the part explained is much larger. The raw correlation is 0.37; the net correlation is 0.27. Adding the age of the spouses into the specification reduces the coefficient by nearly 20%. However, the other specifications do not perceptibly increase the level of explanation.

Risk aversion is the variable for which we observe the strongest correlation between spouses, with a coefficient of 0.635. Moreover, the part explained by the different specifications is nearly one third (net correlation equal to 0.44). Three categories of variables tend to significantly reduce this correlation: age (which alone explains more than 20% of the elasticity), the religious beliefs/education and the opinion on marriage.

Lastly, time preference has a profile fairly similar to that of family altruism. The correlation is quite strong (0.5) but the part explained by the different specifications is very low (less than 15%). Social position, income and religious beliefs/education are the main explaining factors.

Table D.3: Individual determinants of similarity between spouses (scores)

Dependent variable:	Family altruism			Patience			Risk			Time pref.		
male partner	Coeff.	R^2	% explained	Coeff.	R^2	% explained	Coeff.	R^2	% explained	Coeff.	R^2	% explained
Female partner:												
Without control	0.47***	0.193		0.37***	0.108		0.64***	0.289		0.50***	0.232	
Age	0.47***	0.193	0.2%	0.29***	0.161	21.2%	0.51***	0.361	19.4%	0.49***	0.241	2.6%
Income, occupation, education	0.45***	0.244	3.6%	0.27***	0.219	25.5%	0.51***	0.396	20.0%	0.46***	0.314	8.2%
Inheritance/gifts received, father's occupations	0.46***	0.277	1.7%	0.27***	0.229	26.9%	0.50***	0.403	20.6%	0.46***	0.329	8.0%
Children, divorce	0.43***	0.293	7.3%	0.27***	0.235	26.9%	0.50***	0.404	21.1%	0.46***	0.330	8.0%
Inequality between spouses (age, social origin, wealth, income)	0.43***	0.296	7.7%	0.27***	0.238	26.4%	0.51***	0.405	20.5%	0.46***	0.334	8.2%
Duration of relationship before cohabitation	0.43***	0.298	8.5%	0.27***	0.243	26.9%	0.49***	0.415	23.1%	0.46***	0.339	8.4%
Religious beliefs and education	0.41***	0.316	12.8%	0.28***	0.253	25.0%	0.47***	0.434	26.8%	0.43***	0.363	13.0%
Opinion on homogamy and marriage, probable divorce	0.41***	0.330	11.8%	0.27***	0.269	27.7%	0.44***	0.465	30.2%	0.43***	0.372	14.6%
Observations	905			905			905			905		

* p<0.1, ** p<0.05, *** p<0.01. The control variables are added one after another. The first specification has no control variable; in the second, we control for age; in the third, we control for age, income, occupation and education of the spouses and so on.

Interpretation: for each dimension, the first column indicates the coefficient of correlation corresponding to the specification, the second column indicates the R^2, and the third column indicates the part of the initial elasticity that is explained by the addition of control variables. For example, for patience, controlling for age of the spouses decreases the correlation from 0.37 to 0.29; we therefore explain 1 - (0.29/0.368)=21.2% of the initial correlation.