

Nobility and the Marriage Market

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Abstract

We examine a hitherto unexplored aspect of intergenerational transmission of economic status, namely hereditary nobility and its valuation in the marriage market. Using data on Swedish marriages 1985-2004 we test the hypothesis that nobility have a greater probability of marrying “up” in terms of wealth. Our main finding is a sizeable and statistically significant positive effect for nobility, robust to a number of model specifications. Our results indicate that preferences, and especially mate preferences, depend on both perceived status and the consumption of material goods. While positive assortative mating in education, income and wealth in the Swedish marriage market has been found to have increased over the same time period, we find that the relative frequency of homogamous marriages among the nobility has been steadily declining.

1 Introduction

If wealth begets wealth, dynasties may endure even in otherwise meritocratic societies. If an indicator of past wealth begets wealth, this too will reinforce the persistence of economic standing across generations. Such indicators typically bestow prestige and contribute to high status. The important role played by status in most societies has long been recognized by sociologists and anthropologists, and to some extent by economists. As pointed out by Becker et al. (2005, p. 283), “[w]hen status is important, individuals would be willing to pay a lot in time, effort, and money for sufficiently high status.” In a laboratory setting, Ball et al. (2001) find that status can have a significant effect on the outcomes of market games: when buyers have higher status prices are lower than when sellers have higher status. This occurs even when status is randomly distributed and this is known to the subjects.¹ In this paper, we extend this line of research

¹The authors conclude (p. 181); “These findings suggest that higher-status persons have greater access to resources, and that it is reasonable to invest resources in order to acquire

by examining the relative performance of nobility in the marriage market.²

Anecdotal evidence suggests that nobility has remained prestigious in the modern age. There are numerous examples of individuals in the 20th century who have gone to great lengths to acquire a claim to nobility. John von Neumann, the mathematician who pioneered the expected utility framework and laid the foundations of modern game theory, was the son of Max Neumann, who in 1913 purchased a claim to Austrian nobility. Max Neumann thereby acquired the right for his offspring (but not for himself) to call themselves *von* Neumann, a right of which his son John made good use. By contrast, von Neumann's contemporary Friedrich von Hayek was bona fide nobility but preferred to omit the von and simply call himself Friedrich Hayek. German industrialist Heinrich Thyssen married the Hungarian baroness Margit Bornemisza in 1906. Thyssen, a commoner, had his father-in-law adopt him, and since the Baron had no male heirs, Emperor Franz Joseph I bestowed on Thyssen and his descendants the right to adopt the Bornemisza name, coat of arms, and title of Baron. More recently, a scandal erupted in the UK in 2006 following indications of a correlation between individuals making large loans on favorable terms to the Labour party, and subsequent nominations for peerage.

Occasionally, nobility is turned into a marketed good. The website "Noble Titles" (www.nobility.co.uk) specializes in the sale of "bygone Lordship titles". One particularly prestigious title is offered with following sales pitch: "Lordship of Sutton. Dating From 1086 Domesday Book. Registered. Offers Over £40,000. One of the most rare Titles ever to come up for Sale. Once in a hundred years a Title of historical importance comes up for Sale like Sutton. Destiny brought you here to buy this extremely rare and historical Lordship, to keep in your family for ever & ever; passing on to generation after generation, the ultimate heirloom and status symbol: A Title Lord & Lady." The legality of such title sales is questionable. What is striking, however, is the emphasis on the title as a hereditary status symbol.

In Sweden, nobility as an institution originates from the Alsnö Rules of 1280, which granted landowners exemption from taxation in exchange for supplying the monarch with cavalry troops. During the Middle Ages, the link between vassalage and membership of the nobility became weaker. Increasingly, noble titles came to be handed out at the monarch's discretion, and it is these titles that have come to constitute the institution of nobility in its present form. The power of the king to ennoble was abolished in 1975, and Swedish law does not permit transferring ownership of a claim to nobility in an open market. Today marriage is the only remaining conduit for those seeking to join the nobility. For this reason, the marriage market provides us with a unique opportunity to estimate the valuation of nobility as an asset.

Beginning in the mid-16th century, it became customary for newly created nobility to take a new, distinct name upon becoming part of the nobility, often

higher status." On the basis of this, we argue that nobility, a hereditary status marker, might be an important mechanism for the cultural transmission of economic standing.

²Nobility is the traditional term for the highest social class in pre-modern societies, usually with hereditary connotations.

using a familiar set of prefixes and suffixes. Moreover, Swedish law awards intellectual property rights to surnames in direct relation to how distinct they are, i.e. in inverse proportion to the number of families sharing the name. As a consequence, noble names enjoy particularly strong protection and are easily identifiable. The House of Nobility in Stockholm publishes an annual directory over the members of the approximately 600 remaining noble families. Combining the records of the House of Nobility with the Total Population Register compiled by Statistics Sweden enabled us to generate a unique data set. Our data set consists of repeated cross-sections of all marriages in Sweden in 1985, 1990, 1995, 2000 and 2004, with information on age, education, income and wealth of both spouses. The data set also contains a dummy variable with value 1 if an individual's surname denotes nobility, and a 0 otherwise.

Our data provides an opportunity to examine whether people care about both status and wealth, as suggested by Becker et al. (2005), by testing the hypothesis that the probability of hypergamy (marrying "up") in terms of wealth increases when an individual belongs to the nobility.³ If nobility bestows status, and if individuals value both status and consumption, an individual belonging to the nobility is likely to attain a premium in the marriage market compared to a non-noble individual with otherwise identical characteristics. Swedish nobility is hereditary on the male side only. On the basis of this, we also test the auxiliary hypothesis that male nobility is valued more than female nobility. If individuals care about their offspring, they will attach greater value to a status marker if it can be passed on to their children. Conditional on a continued male bloodline, it (nobility as status marker) becomes an asset that continues to pay dividends indefinitely. Even with intergenerational discounting, such an asset warrants a higher price than the non-hereditary equivalent, which can be thought of as an asset paying a dividend only in the current period.

Our main finding is a statistical significant increase in the probability of hypergamy in wealth for members of the nobility, controlling for own wealth and other covariates. This "nobility premium" is robust to a number of different measures of hypergamy. Given the low baseline probabilities, the 2 percent premium must be considered sizeable: it is approximately equal in magnitude to the female baseline probability and considerably larger than the male baseline probability (1 percent).⁴

We also find some support for the auxiliary hypothesis that male nobility awards a higher premium than female nobility. An interaction term for sex and nobility is not significant, indicating that the coefficient for the nobility dummy is the same for male and female nobility. In proportion to the baseline probability, however, the effect is considerably stronger for male nobility. The same applies when comparing against other coefficients. In terms of the odds ratio, the nobility premium is hence larger for men than for women, consistent with our hypothesis that the hereditary aspect of nobility is an important driver

³The data for 2005 was not yet available so we chose the nearest available data.

⁴The low baseline probabilities reflect highly aggregated data combined with a narrow measure of hypergamy. Nonetheless, the implied low level of social mobility at marriage is striking.

of the nobility premium. This auxiliary result should be treated with some caution. We run additional regressions using the logit estimator, which directly estimates the marginal effects on the odds ratio. The interaction term for sex and nobility in these regressions has the expected sign but is not significant.

We also look at the change in frequency of endogamy (within-group marriage) among nobility in Sweden over the same time period. We find that the frequency of endogamous marriage among the nobility (in which both spouses belong to the nobility) has decreased rapidly during the period. MORE HERE

Our paper is related to a large literature. The marriage market has been studied by economists since Becker (1973). Becker predicted positive assortative mating – positive correlation between characteristics of the two partners – in most traits, based on the assumption of trait complementarity between spouses. Positive assortative mating has also been demonstrated empirically. Buston and Emlen (2003) find that individuals in Western Society have a preference for long-term partners that are similar to themselves in evolutionarily relevant categories of traits such as indications of wealth and status, family commitment, physical appearance, and sexual fidelity. This means that people use a “likes-attract” decision rule rather than one of “opposites-attract” or “reproductive-potentials-attract”. "Reproductive potentials" refers to the case where an individual scoring high in certain traits seek a partner scoring highly in other traits that are complementary from a reproductive perspective. By this rule, an individual scoring highly in physical appearance and faithfulness would be attracted to individuals scoring highly in other, complementary traits such as wealth and status. By contrast, a likes-attract rule predicts that an individual scoring highly in physical appearance and faithfulness would be attracted to other individuals scoring highly in the same traits. As Buston and Emlen (2003) point out, a likes-attract rule will generate positive assortative mating in marriage markets. Pencavel (1998) and Schwartz and Mare (2005) investigate positive assortative mating in education. Both studies find increased positive assortative mating in the US since 1960.⁵ Pencavel (1998) emphasizes that this result is not merely driven by an increased similarity in the distribution of education for men and women. While it is true that these distributions have become more similar, there is an increased positive assortative matching also when conditioning on the education level of one spouse. Almenberg and Dreber (2007) use Swedish data and find increasing positive assortative mating in education, income and wealth between 1985 and 2004. Other studies include Gustafsson and Worku (2005) who report positive assortative mating in education in Sweden in the period 1984–1998, though based on a selected sample suited for the purpose of their study (women with at least one child).⁶

A number of sex differences have however been observed in mate preferences and in the marriage market. In a "Speed Dating" experiment, Fisman et al. (2006) find that women attach more importance to intelligence and men attach

⁵Both studies find a decrease in educational positive assortative mating between 1940 and 1960.

⁶Gustafsson and Worku (2005) also report positive assortative mating in education in the UK.

more importance to physical attractiveness. Propensity to marry is negatively correlated with IQ for women but positively for men (Taylor et al. 2005). Moreover, there are typically more men than women at the top of the income distribution. This will lead to women being more likely to marry upwards in income also with random matching.

Positive assortative mating can also reflect institutions designed to preserve segregation along certain lines on the marriage market. As an example of such mating pools, Bisin and Verdier (2000) cite the description by Grange (1996) of the French aristocracy’s reliance on an invitation-only social register and annual series of traditional dancing parties as strategies for the transmission of cultural and social capital through the promotion of endogamous mating, i.e. marriages where both bride and groom belong to the same group, in this case the nobility.

Matching behavior in the marriage market is closely intertwined with intergenerational transmission of economic standing. This transmission has been found to incorporate a wide range of channels besides the traditional economic variables. Hereditability of physical traits such as cognitive ability and health, and physical appearances such as height, attractiveness, and race, have all been found to affect economic outcomes (Bowles and Gintis 2002). While cultural transmission of economic standing clearly plays a part, this mechanism has remained relatively unexplored. Compared to less stratified mating patterns, positive assortative mating reinforces differences in the endowments of biological, economic and cultural assets in the population over time (Fernández & Rogerson 2001; Fernández et al. 2005).⁷ Under certain assumptions, such mating patterns can preserve heterogeneity in a population indefinitely (Bisin and Verdier 2000).⁸

There are a few caveats to our study. If the observability of wealth is systematically different for members of the nobility, or if nobility is correlated with other, unobserved variables that affect the probability of marrying “up”, our estimates will be biased. We argue on the basis of our regression results that the nobility premium is greater for men than for women. This is consistent with our general interpretation, and restricts alternative explanations based on unobserved heterogeneity to omitted variables that increase the probability of hypergamy for nobility and do so with a proportionally larger effect for male nobility than for female nobility.

In sum, our findings are consistent with the hypothesis that nobility attain a premium on the marriage market, indicating that preferences are status sensitive. Our results are highly robust to different definitions of hypergamy. We also find that endogamy among the nobility has decreased in the time period investigated, whereas other forms of positive assortative mating in the Swedish

⁷Fernández et al. (2005) examine the effects of assortative mating on inequality both theoretically and empirically, concluding that an increase in assortative mating exacerbates inequality.

⁸Kremer (1997) takes a contrary view, arguing that the effect of sorting on educational inequality is small, whereas the effect on persistence of educational attainment across generations is larger. Fernandez and Rogerson (2001) show that this result hinges crucially on the functional form assumptions Kremer makes in modeling the intergenerational transmission of educational attainment.

marriage market have been found to have increased over the same time period (Almenberg and Dreber 2007).

Our paper is organized as follows. In section 2, we describe our data. In section 3 we present our econometric model and report the regression estimates. We also summarize our robustness checks. In section 4 we look at the frequency of endogamy among the nobility between 1985 and 2004, and we predict what the future of nobility will look like. We conclude in section 5, where we discuss some implications of our results and suggest directions for future research.

2 Data

We use a repeated cross-section of all marriages in Sweden during 1985, 1990, 1995, 2000 and 2004, in total 195,405 marriages.⁹ The data draws on the Total Population Register and was compiled by Statistics Sweden on our behalf. The data contains information on a number of characteristics of bride and groom, including age, income, net wealth and level of education.¹⁰ The data set also contains a dummy variable with value 1 if an individual's surname denotes nobility, and a 0 otherwise. A set of names belonging to the remaining families of the nobility was provided by the House of Nobility in Stockholm and used to generate this indicator. In the data set, 1,782 individuals belong to the nobility according to this indicator, equivalent to 0.46 percent of the sample. This is similar to the proportion of nobility in the population at large.

The control variables are at a high level of aggregation.¹¹ Individuals belong to one of five income categories: [0–121,999], [122,000–199,999], [200,000–299,999], [300,000–499,999], and [500,000–].¹² Age is in the following brackets: (–24), (25–29), (30–34), (35–39), (40–44), (45–54), or (55–). The data on education places each individual in one of four categories, corresponding to pre-high school, high school, less than three years tertiary, and more than three years tertiary education. Individual wealth belongs to one of four categories: [0–199,999], [200,000–499,999], [500,000–1,499,999], and [1,500,000–]. For each of the above categories, we construct a set of dummy variables corresponding to the aforementioned categories. In the regressions, the lowest bracket is the baseline for each categorical variable.

The wealth tax that was effective in Sweden until 2007 provided strong incentives for tax avoidance. Given that there have been numerous ways of reducing taxable wealth in Sweden, it is unlikely that these figures show the individuals' full wealth.¹³ This reduces the efficiency of our estimator. In addition, it is a

⁹At the time of writing, the data for 2005 was not yet available, so we chose the closest available data.

¹⁰The data was compiled by Statistics Sweden.

¹¹In part this reflects the requirement from Statistics Sweden to protect individual integrity, given the small number of nobility in our sample.

¹²All amounts in SEK. 1 SEK = approx. 0.11-012 USD (adjusted for purchasing power).

¹³At the time of writing, assets not taxed at all or entered in tax returns at levels far below market value include farm land holdings, arts and antiques, and shares of small-cap firms on

potential source of unobserved heterogeneity in the sample. Let W be the true wealth, and $(1-\alpha)W$ the observed wealth of individual i , with $0 < \alpha < 1$. If α is positively (negatively) correlated with belonging to the nobility, our estimate of the nobility premium will be biased upwards (downwards). Note that even if α is correlated with nobility, our estimates of the difference in the nobility coefficient between male and female nobility will not be biased unless the correlation itself differs systematically between the sexes. We discuss unobserved heterogeneity more extensively in section 3.

3 Hypothesis testing

3.1 Regression analysis

According to our hypothesis, we expect a higher probability of marrying “up” in terms of net wealth for individuals belonging to the nobility. To test this hypothesis, we construct an indicator variable that takes on the value 1 if individual i marries into a higher wealth bracket, and 0 otherwise. To test the robustness of our results, we tested a number of different specifications of this indicator, including the transition probabilities between specific wealth brackets. Our results are broadly robust to such modifications.

We use the linear probability model (ordinary least squares) to estimate the probability of an individual marrying a spouse in a higher tax bracket. We rearrange the observations so that each individual appears twice, as individual i and as a spouse. This allows us to estimate the probability on the whole population of individuals in the sample.

We include a dummy variable indicating if the individual is male, allowing for different baseline probabilities for men and women, consistent with the observed data. We also include interaction terms between the male dummy and all controls, thus allowing for the slope coefficients to differ between the sexes. An F -test comfortably rejects that the set of interaction terms is jointly insignificant. We also include a full set of controls for the spouse, to make sure that we are not confounding an increased probability of marrying up in wealth with an increased probability of marrying somebody with higher age, income or education. A Breusch-Pagan test rejects the hypothesis of normally distributed residuals (p -value 0.000), so instead we use Huber-White robust standard errors. This does not alter our results.

We also estimate logit and probit models. These are bounded on the unit interval and hence have an intuitive appeal when the dependent variable is a probability. It is not, however, necessarily the case that the functional form provides a better fit on the whole. Our overall results are robust to the use of these functional forms, but the statistical significance is weakened for some controls. We include the estimates from the logit regression as it allows us to interpret our results in terms of the effect on the odds ratio.

the Stockholm stock exchange (not on the A-list).

Table 1. Dependent variable: probability of marrying “up”

	LPM		Logit	
	(1)	(2)	(3)	(4)
Nobility	0.018 (0.09)*	0.017 (0.04)**	0.211 (0.06)*	0.329 (0.05)**
Male * nobility	-0.005 (0.68)	-0.006 (0.56)	0.283 (0.18)	0.094 (0.71)
Additional controls:				
Individ. characteristics	No	Yes***	No	Yes***
Spouse characteristics	No	Yes***	No	Yes***
Male	-0.069 (0.00)***	-0.006 (0.00)***	-1.522 (0.00)***	-0.357 (0.00)***
Year	Yes	Yes	Yes	Yes
Interaction terms:				
Male * {indiv. char.}	No	Yes	No	Yes
Constant	0.088 (0.00)***	0.016 (0.00)***	-2.356 (0.00)***	-4.229 (0.00)***
Observations	377,618	342,928	377,618	342,928
R^2	0.03	0.04	—	—

p -values in parentheses. Robust standard errors.

*sign. at 10% level; **sign. at 5% level; ***sign. at 1% level

The coefficient for nobility is positive and statistically significant in all specifications. Controlling for characteristics of individual i and spouse, and interacting individual i 's characteristics and sex improves the fit of the model and does not fundamentally alter our results. We also include the coefficients from the logit regression. The statistical significance of a number of controls deteriorate with this specification (see Appendix 1). For this reason we rely on regression (2) as our main model. The full set of estimates is reported in the appendix.

The interaction term between nobility and being male is not significant in the linear probability regression. The implication of this is that the increase in probability is of the same magnitude for men and women of the nobility. Given the considerably lower baseline probability of male upward mobility, this suggests a proportionately larger effect for males, consistent with a premium for *hereditary* nobility. In regression 2, baseline probability is 1.6 percent for women and 1 percent for men. For nobility, the corresponding estimates are 3.3 percent and 2.7 percent respectively. By these estimates, the marginal effect of nobility on the odds on marrying up is equivalent to 106 percent for women and 170 percent for men. This result must be interpreted with some caution. The logit specification estimates the partial effects of the explanatory variables on the odds ratio, as opposed to the probability levels. While the interaction term between nobility and being male is positive, the standard errors become very large when we introduce the full set of controls in regression (4). Moreover, the linear probability regression gives negative sign for the (statistically insignificant) coefficient on the male nobility interaction term. Further research

may shed light on the discrepancy between the coefficients for male and female nobility.

Nobility might be correlated with variables that we are unable to control for in the sample, for example human and social capital, or even physical appearance. If such unobserved heterogeneity is a direct consequence of nobility, this does not undermine the validity of our findings. It is important to recognize, however, that there might be other unobserved variables that could arguably affect our results. This is a further reason for interpreting our results with some caution. In particular, if the fraction of an individual’s wealth that goes unreported is positively correlated with belonging to the nobility, then our estimates will be biased upward. If past wealth is positively correlated with residing in affluent neighbourhoods, and if residing in affluent neighbourhoods is positively correlated with the probability of marrying “up”, this may also bias our results. There might be a number of such unobserved variables that women value more in the marriage market. If such indirect effects are strong, and if the correlation differs substantially between the sexes, this unobserved heterogeneity could generate a proportionately larger premium for male nobility. An extension for future research is to explore the composites of the nobility premium in more detail. A more sophisticated modelling approach to the marriage market adds additional complexity to the interpretation of our results. Hypothetically, nobility could be more prevalent in marriage markets in which population densities, the fraction of singles, and sex ratios among singles differ from the population average. In a search model of the marriage market, these factors would be expected to influence the reservation price at which a match is made (Drewianka, 2003). Controlling for such factors is beyond the scope of our data set, but would constitute an interesting avenue for further research.

3.2 Robustness checks

We conduct a number of robustness checks to test the validity of our results. Our conclusion is that our results are robust. A non-technical summary of the robustness checks follows. Readers more interested in our general analysis are encouraged to skip to the next section.

Our first robustness check consists of checking whether our main finding, the nobility premium, is consistent with alternative measures of hypergamy. The measure we use for our main regression, reported in table 1 above, is the probability of marrying an individual in a higher wealth category. Let x_i , y_i denote the wealth bracket of individual i and individual i ’s spouse. Our main model corresponds to estimating the probability of $y_i > x_i$, conditional on the covariates. To check the robustness of our findings, we also test the following measures of hypergamy: $x_i \leq 2, y_i > 2$; $x_i < 4, y_i = 4$. Next, we drop all observations in bracket 1 and test $1 < x_i < 4, y_i = 4$. We also drop all observations in bracket 2 and 3 and test $x_i = 1, y_i = 4$. The last two tests were conducted in part to check the robustness of our results to different measures of hypergamy, and in part for reasons listed in the next paragraph. We find

evidence of a nobility premium of similar magnitude in all the aforementioned cases, suggesting that our results are not particularly sensitive to the choice of hypergamy measure. A table of results is presented in Appendix 2.

We also investigate whether our results are driven by differences in the distribution of nobility and non-nobility within wealth brackets. The wealth distributions of the nobility and of the general sample are different, with the probability mass of the former being “to the right” of the latter, in the sense of stochastic first order dominance. Given the high level of aggregation – only four wealth brackets – differences in the distribution within each bracket might influence our results. If, for example, the average wealth of nobility in the lowest wealth bracket is higher (lower) than average wealth of non-nobility in the same bracket, our estimate for this group would be biased upward (downward).

Given the concentration of both nobility and non-nobility in the lowest wealth bracket, we test this by running two modified versions of our main regression and comparing the results. In the first version, we exclude all observations in the lowest wealth bracket from our regression. This is the case of $1 < x_i < 4$, $y_i = 4$ mentioned above. The nobility dummy remains statistically significant, and the coefficient (1.6 percent) is close in size to the coefficient estimated with the full sample. In the second version, we exclude all observations in brackets 2 and 3. This is the case of $x_i = 1$, $y_i = 4$, mentioned above. The nobility dummy is statistically significant (p -value = 0.001). The coefficient (2.03 percent) is close in size to the coefficient estimated with the full sample.

As an additional precaution, we also estimate the probability of marrying “down”. If nobility in the lowest bracket really have higher average wealth, we would expect a significant positive effect for the nobility dummy. We run a similar to regression to the one above, except that the dependent variable is the probability of an individual from the second wealth bracket marrying an individual in the lowest wealth bracket, $x_i > y_i$. The nobility dummy is far from significant in this regression, indicating no such effect (p -value = 0.888). We conclude that our results are not likely to be driven by differences in the distribution of nobility and non-nobility within wealth brackets.

4 Looking ahead

Intergenerational transmission of economic standing has been interpreted in terms of inputs into a production function, where the output is economic outcomes. The strategic marriages between British nobility, rich in symbolic capital but cash poor, with the daughters of American industrialists in the late 19th and early 20th century has been documented by historians (Cannadine, 1990). The economic standing of the Swedish nobility has been declining over the last few decades. For example, members of the nobility on the boards of Swedish listed companies decreased from 12 to 4 percent of all board members between 1968 and 1998. Nonetheless, a Pearson χ^2 test rejects independence of wealth and nobility for all years in our sample (p -value 0.000).

Looking at Swedish marriage data, Almenberg and Dreber (2007) find increasing positive assortative mating in wealth, education and income between the time period 1985 and 2004. While we also find evidence of positive assortative mating in nobility, there is a marked decline in the frequency of endogamous marriages (marriages in which both spouses belong to the nobility). Looking more closely at the subsample of individuals that belong to the nobility, we are able to reject independence of bride nobility and groom nobility (Pearson χ^2 test, p -value 0.000). However, the relative frequency of endogamous to heterogamous marriages among the nobility has been steadily declining. The second column of table 2 shows the observed frequency of endogamous marriages, by year. The third column shows the expected frequency in the case of random matching, given the observed frequencies of male and female nobility in the sample.

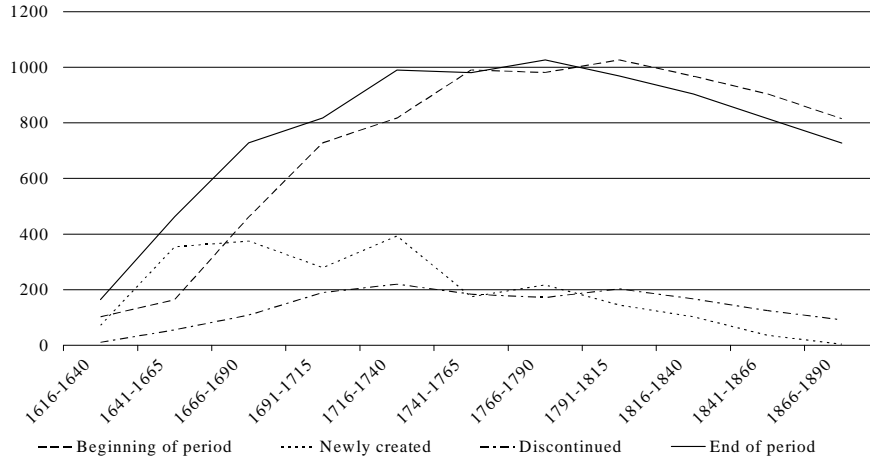
Table 2. Relative frequency of endogamous marriages among Swedish nobility (per thousand).

year	frequency	E(freq.)
1985	18.2	0.020
1990	11.6	0.019
1995	10.2	0.020
2000	8.0	0.026
2004	2.6	0.024

Our findings suggest that for nobility, access to wealth has come to play an increasingly important role in the marriage market, and the transmission of cultural capital less so. Our results may also have consequences for the future evolution of Swedish nobility. Swedish nobility is hereditary on the male side only. If all branches of a noble family have only daughters in one generation, the family ceases to belong to the nobility. Greater access to resources may mean greater reproductive potential. There is no new nobility being created, but how long will the existing nobility continue to exist? COMMENT HERE.

During the 19th century, the monarch's right to hand out nobility titles was increasingly questioned, and the creation of new nobility declined rapidly. The nobility lost most of its privileges in the reform of 1809, and most of its political influence through the reform of 1866, which stripped the House of Nobility of its role as upper chamber of parliament. The last individual to join the nobility was explorer Sven Hedin, in 1902. In 1975, the monarch's right to hand out nobility titles was formally revoked as part of a larger constitutional reform.

Chart 1. Evolution of Swedish nobility (number of families).



Source: Falhbeck (1898)

Prediction: a marriage market premium suggests that nobility might persist for a long time even though new nobility is no longer "created".

5 Conclusions

Who marries whom influences future generations to the extent that the characteristics of the parents are passed on to their children. Who marries whom is therefore an indicator of the distribution of a wide range of characteristics of the next generation. For example, IQ is highly hereditary, making it important to consider the degree of positive assortative mating when studying social mobility (Bowles & Gintis 2002; Toga & Thompson 2005).

Almenberg and Dreber (2007) find evidence of increasing positive assortative mating in education, income and wealth in Swedish marriages 1985-2004. We find that the frequency of endogamous marriage among the nobility has decreased sharply during the same period. We also find that hereditary nobility, a proxy for status, increases the probability of marrying "up" in wealth. We do not find that the coefficient differs between the sexes. Considering that the baseline probability is far smaller for men than for women, this can be interpreted as a larger proportional effect for male nobility. While this is consistent with the interpretation that nobility attains a larger premium when it is hereditary, this result should nevertheless be interpreted with some caution.

Historically, male nobility, and rich men in general, have reproduced to a greater extent than other men (e.g. Clark 2007). This is not surprising given that these men also tended to be in the upper strata of income and status, and had privileges that neither commoners nor noble women had. But in an era

when such privileges have been curtailed, a marriage market for nobility suggests a positive valuation of status itself. If the symbolic capital of nobility continues to attract a premium in the marriage market, this provides an additional mechanism that reinforces the persistence of social stratification and inequality. Moreover, if status and consumption of other goods are complementary as Becker et al. (2005) suggest, and if status markets are becoming relatively more scarce, the nobility premium might well be increasing with time.¹⁴

Prediction: a marriage market premium suggests that nobility might persist for a long time even though new nobility is no longer "created". COMMENT HERE.

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¹⁴Becker et al. (2005) show how the price of status relative to other consumption goods increases when status markers become relatively more scarce.

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