

Marriage Payments and Wife's Welfare: All you need is love.

Rozenn Hotte and Sylvie Lambert *

February 15, 2018

Preliminary, please do not quote.

Abstract

Bride price is essential to marriage in West Africa and particularly in Senegal where transfers to the family of the bride characterize about 85% of marriages. The impacts of bride price on the wellbeing of the wife in her household have scarcely been studied in West Africa. Further the simultaneous existence of other marriage payments, flowing in different directions between the stakeholders is also largely ignored. To assess the impacts of these marital transfers on the women's wellbeing in Senegal, we use a unique survey that enquires separately about the different marriage payments. We highlight the strength of the link between what is given to the bride herself and her welfare, contrary to the looseness of the link with what is given to the family. Our results underline the importance of analyzing marriage payments in their full complexity.

JEL Classification: J12, J16, 055

Keywords: Bride-Price, Marriage, Women, Senegal.

*Contact information: Rozenn Hotte: Paris School of Economics, EHESS, hotte.rozenn@gmail.com; Sylvie Lambert: Paris School of Economics, INRA, sylvie.lambert@psemail.eu

1 Introduction

In rural China, Thailand, Sub-Saharan African and Middle-Eastern countries, transfers at the time of marriage take mainly the form of bride prices (Anderson, 2007). Bride prices are transfers from the family of the groom to the family of the bride, contrary to dowries. They were used in two thirds of the societies recorded in the Murdock's World Ethnographic Atlas (1967) and are still an important practice today. Bride price has already been studied through its ceremonial function (mostly by the anthropological literature). For the economic literature, the bride price is seen as a compensation for the bride's parents, facing the loss of their daughter who represents an asset, or as a compensation for the bride herself (Becker, 1991). The link between bride prices and the welfare of women is controversial.

In recent years, several discourses, in media, have criticized this practice. In the literature that tries to assess how women fare in terms of their access to household resources, bride price is largely used as a proxy for the bargaining power, like dowry, because it is viewed as a substantial amount earned by the woman, which can participate to her empowerment (Doss (2011), Quisumbing and de la Briere (2000)). There are also some suggestions that a higher bride-price might be correlated with wife's higher bargaining power within the household (Mbaye and Wagner (2017) in Senegal and Kaye et al. (2005) in Uganda). However, Chan and Zhang (1999) criticize the Becker model because of the exact same roles that bride price and dowry are assumed to play. These authors suggest that only the dowry and not the bride-price should impact intra-household allocation of resources, as the bride-price is not retained by the wife. More generally, Gaspart and Platteau (2010) regret the total absence of strategic consideration in Becker's explanation and the exclusively private good approach. They introduce therefore a public good and try to take into account the relations of power between the bride and her groom, and the bride and her parents. They show that bride price can actually decrease the wife's well-being. In the recent economic literature, Corno and Voena (2016) and Corno et al. (2016) have shown, using data on several countries of Africa, that the probability to have an early marriage is higher in case of negative shocks to family income, among societies that practice bride prices. Early marriage could be a way for families to smooth consumption, thanks in part to the receipt of the bride price. But Ashraf et al. (2014) show, in Indonesia and Zambia,

that construction of schools have increased the education of girls belonging to ethnic groups practicing high bride-price. These papers suggest that bride-price is a revenue for parents, who take strategic decision regarding their daughters so as to affect its timing or amount. In the context of the DRC, Lowes and Nunn (2016) show no systematic link between the amount of bride prices and earlier marriage or higher fertility. In total, how bride-price relates to the bride's wellbeing is still an open question and might well depends on the context.

In Senegal, the main marriage payment is a bride price. It is nevertheless not the only transfer that takes place at this occasion. If the bride price, formally given by the groom and the groom's family to the brides parents, is the most systematic one, other transfers between the various stakeholders are commonly observed. Two important components of these transfers concern the bride herself. She receives a transfer from her husband, that will be hereafter referred to as the gift (*le cadeau*, as it is called in French) and she brings in the household a certain amount of resources, akin to a wedding trousseau (*le bagage*). In addition, the brides parents might contribute to the expenses of the marriage ceremony. Marriage payments have rarely been analyzed in their full complexity. Indeed, although a significant scientific literature on dowries and bride prices exists, the fact that marriages give often rise to several simultaneous payments (this is for example true also in Pakistan or Bangladesh, Ambrus et al. (2010)) is scarcely ever taken into account. In this paper, we aim at filling part of this gap.

It is important to underline that in Senegal the bride price is traditionally fixed by the two families and the groom, and, is mostly spent for the wedding and distributed among the extended family by the mother of the wife. Therefore, this transfer benefits only very little to the wife herself. On the contrary, the gift is directly given to her and the trousseau remains her property. When considering whether marriage payments correlate with the wife's wellbeing in her marriage, it is therefore important to consider each of them separately, as they might well relate differently to the wife's outcomes.

In this paper, we will consider the wife's consumption as a measure of her wellbeing. We want to assess the links between the various marriage payments and her consumption. We use

original data from the survey "Pauvreté et Structure familiale" (thereafter, PSF), collected in Senegal in 2006 (Vreyer et al., 2008). These data are particularly well suited for our objective, because they provide detailed information on transfers at the time of marriage, for every unbroken marriages: the bride price, the gift and the trousseau are precisely recorded. They provide also information on consumption at disaggregated within-household level, which is particularly important in a context of extended households.

This paper allows to dig deeper into the question of the link between marriages payments and intra-household resources allocation. Our work is one of the first to detail the different transfers occurring at marriage and to show that they relate differently to wife's welfare. We find that the bride price doesn't seem to affect the wife's access to household resources, contrary to the gift received from the husband. A natural explanation is that unobservable characteristics explain both the existence and level of the gift and the relative consumption of the wife in the household, but these unobservable are not correlated with the bride price itself. Therefore, husband's wealth or husband's parents social status are unlikely to drive this result as they would also correlate with the bride price. On the other hand, how much the future husband values his wife, how much he loves her, are potential candidate.

The remaining of the paper proceeds as follows. Section 2 presents the context of the study. Section 3 describes the data. Section 4 presents the methodology and section 5 lays out the results. Finally, section 6 concludes.

2 Context

Bride prices are present in most marriages in Senegal. They are gifts in kind or cash given by the family of the groom or the groom himself to the family of the bride. In our data, they are present in more than 84% of the marriages that involve a woman in her first marriage. The bride price is given before the marriage. Its level is negotiated between both couples of parents, largely on the basis of local norms. A large part of the bride price is spent in the wedding ceremony, for the meals and the clothes. The size of the wedding ceremony matters for families as,

according to qualitative interviews, it is a way for the family of the bride to establish its social status. In addition, the wedding ceremony is also an occasion for many gifts to be exchanged with all the guests, and for people to strengthen their network. Thus, the part of the bride price that is not spent on ceremonial expenses is redistributed by the bride's mother to people deemed to deserve it, because they have played a role in the childhood of the bride or because they contribute to the ceremony. The guests (who didn't necessarily receive the money from the mother) will also each make a small monetary contribution (called *ndawtal*). The counterpart of this contribution will take place when they will themselves organize a ceremony. See Buggenhagen (2012) for a description of this gift/counter-gift dynamic. Wedding is therefore an essential occasion to strengthen the network, that could be mobilized again for future marriages of the siblings. Hence, even though bride's families receive a bride price, in the Senegalese context, it doesn't imply that they make a real profit at the occasion of their daughters' wedding. A long-term effect through the network may exist but the direct income shock caused by bride price is probably very limited. In some rare cases, a little part of the bride price could be given to the bride, but it is often spent for her clothing during the ceremony. At the end, if bride prices may have an effect on the parents' network, it should affect the well-being of the bride to a lesser extent. This is consistent with the Chan and Zhang (1999) theoretical framework.

The gift, on the contrary, is given specifically by the husband to the bride. Traditionally, jewelry were offered, which constituted a precautionary saving that was retained by the wife and could be used in case of divorce or widowhood. It therefore played a similar role to the dowry found in other Muslim countries. Nowadays, qualitative interview suggest that it consist more in some conspicuous consumption goods such as smartphones or radios, as well as some money. It might therefore have lost its long term protective role. The gift is not mandatory to get married, contrary to the bride price. As it is optional, it could represent a fairly accurate signal of the value the husband attach to marrying this particular woman.

The money of the gift can be used to partly cover for the cost of the trousseau (*bagage*), which is what the wife brings into her new household. The wife's family also contributes to it. There is a lot of individual variation in the share of the trousseau covered by the bride's own

family relative to that covered with the husband's contribution. This trousseau takes the form of kitchen utensils, dishes. The *bagage* is essential in ensuring the wife's well-being in her new household: borrowing kitchen utensils from other women in the house is frowned upon. The content of the *bagage* remains the property of the bride alone. Because the trousseau often comes in large part from the bride's own family, its presence and level may well reflect the strength of the support she can expect from her kin group. Beyond the bride price, the gift and the trousseau, a transfer is sometimes given from the family of the bride to the family of the groom, mainly as a contribution to the wedding ceremony.

Our Senegalese data reveal that, in the sample of women whose first marriage occurred in the 10 years preceding the survey (between 1996 and 2006), bride prices were given in 84% of the cases, gifts received in 62% of them and the wife brought a trousseau in 56% of those marriages (table 1). In one third of marriages, the 3 types of transfers existed simultaneously (table 6 in the appendix). Amounts are also quite large as the mean bride price at first marriage is 120 000 (constant 2005) CFA francs and the mean gift is 71 000 2005 CFA francs, while the value of the trousseau reaches on average 54000 2005 CFA Francs (table 2). The sum of bride price and gift represents almost a third of the mean yearly consumption per capita in Senegal. The simultaneous presence of these different transfers at weddings has never been studied. It echoes some work trying to understand simultaneous dowry and bride price (Bangladesh and Taiwan), but mainly in contexts of slow transition from one system to another. Here, the nature of those transfers differs in a deep way, and understanding their respective drivers and how they relate to married women welfare would shed light on this understudied aspect of the marital institution in Senegal. This is the objective of this work.

Table 1: Existence of marriage payments

	N	Mean	SD
Positive Bride-Price	675	0.84	0.36
Positive Gift	675	0.61	0.49
Positive Trousseau	675	0.56	0.50

Note: Source : PSF1.

Sample: marriages from 1996 to 2006. Women in their first marriage.

Table 2: Values of the marriage payments

	N	Mean	SD	min	max
Bride-Price (1000 FCFA 2005)	675	119.997	134.138	0	813.537
Gift (1000 FCFA 2005)	675	71.535	107.286	0	766.636
Trousseau (1000 FCFA 2005)	675	54.058	81.004	0	546.867

Note: Source : PSF1.

Sample : Marriages from 1996 to 2006. Women in their first marriage.

2.1 Conceptual framework.

In this paper we are trying to understand one the one hand what are the determinants of those payments and whether these payments correlate with the wife's bargaining power in her marital household (noting that causality could go both ways.). Determinants of those payments (P) reflect both the social norms (SN) that apply to a particular marriage (due to the ethnic affiliation, regional practices, families social standing...) and individual characteristics of husband and wife (H, W). Which aspects weight more for each of those transfers is mainly an empirical question. In the Senegalese context, since the bride-price results from negotiations at the level of the families, we can nevertheless expect it to be heavily constrained by existing norms. The gift on the contrary is entirely appropriated by the wife and might therefore reflect features that are more specific to the spouses. Finally, the trousseau is often paid for not only thanks to the gift but also thanks to kin contributions (sisters, aunts, etc). It can therefore be expected that bride's family composition and wealth are key (W). In addition, some unobservable factors linked in particular to personality traits of husband and wife and the interpersonal quality of the match, are likely to enter into play on all of these payments (v).

$$P_i = f(SN_i, H_i, W_i) + v_i \quad (1)$$

Where P stands for payment, that can be either a bride-price (BP), a gift (G) or a trousseau (T).

How these payments relate to bargaining power depends on various factors. On the one hand, one can think that anything that limits divorce options plays against the wife's bargaining power. Hence, social norms that command a high payment might also put a lot of pressure on women to stay in the marriage at any conditions. On the other hand, any characteristic of the wife and her family that positively affect the payments might also strengthen her outside options. Unobservable characteristics (kindness of the husband, quality of the marriage, love...) also play a role in determining the wife's access to household resources. Which of those characteristics is captured by each payment will drive the correlation of those payments to the wife's bargaining power as measured for example by her access to household resources (Y), controlling for the observables that affect both the payment and the wife's bargaining power.

$$Y_i = g(SN_i, H_i, W_i, BP_i(v_{BP}), G_i(v_G), T_i(v_T)) + u_i \quad (2)$$

Hence, by estimating these two sets of models, we can uncover which of the marriage payments, in the Senegalese context, best reveal women's intra-household bargaining power.

3 Data and Descriptive Statistics

3.1 Data

Survey Data used in this study are from the PSF Survey (Vreyer et al., 2008)¹. Data have been collected in 2006 and are nationally representative. It covers 1750 households, and 14 450 individuals. The survey recorded all the marital transfers: the gift, the bride-price and the

¹Momar Sylla and Matar Gueye of the Agence Nationale de la Statistique et de la Demographie of Senegal (ANSD), and Philippe De Vreyer (University of Paris-Dauphine and IRD-DIAL), Sylvie Lambert (Paris School of Economics-INRA) and Abba Safir (now with the World Bank) designed the survey. The data collection was conducted by the ANSD.

trousseau². This level of detail is very rare. Data sets that record bride-prices or dowries usually stop at this single (main) marital transfers. There are few exceptions concerning Bangladesh and Pakistan, countries where bride-price and dowry tend to increasingly coexist (Ambrus et al., 2010). In the Senegalese context, the practice of multiple marital transfers, in addition to the nearly universal bride-price, is widespread.

Consumption The PSF survey collects information on food and non-food expenditures. The recall period is chosen for each good by the respondent, expenditures have then been annualized. A particular strength of the data set is that it takes into account the intra-household allocation of consumption. Each household is split into semi-autonomous budgetary units (cells), composed of a cell-head and his dependents. In particular, wives of the household head are systematically recorded in an autonomous cell. Consumption is recorded in three parts: consumption common to the whole household, consumption that can be assigned to specific cells and finally, consumption shared between several cells but not the whole household. Total cell consumption can be constructed by ascribing a share proportional to cell size of the common or shared expenditures and adding cell specific expenses. Intra-household inequality in access to consumption can therefore be exhibited. It appears that food consumption is rather equally shared, while it is not the case for non-food consumption (Vreyer and Lambert, 2017). We will consider the ratio of the woman’s cell per capita non-food consumption to that of her household as a measure of her access to household resources. Further, for each consumption record in the survey, the persons who financed the corresponding expenditures are recorded. We can therefore consider another outcome reflecting the support the husband provides to his wife, the share of the wife’s cell consumption that is financed by the husband.

Sample Amount records are possibly affected by recall bias. To try to confine this problem, we restrain our sample to women who have been married in the 10 years preceding the survey, hence after 1996. Remarriage affects marriage payments in a specific way (bride price are less systematic), we therefore carry the analysis first for the subsample of women in their first mar-

²We also attempted to record the contribution of the bride’s family to the family of the groom, but the question was not understood in an homogenous way by all enumerators. Some of them understood that participation to ceremonial expenses were not to be recorded here, while others included such expenses. As a result, we chose not to use this information

riage, and then include the women in their second (or subsequent) marriage. To avoid other specific situations, we also exclude some outliers. The sample for which information on marriage payment is complete contains 810 women, among them 675 in their first marriage. We have full information on the husband only in case of co-residence of the couple: 520 women coreside with their husband (464 for those in their first marriage). Since it is less relevant for our purpose to analyze the access to household's resources for women who still live with their parents or who have an independent lodging, the analysis of relative non food consumption will be restricted to this subsample of co-residing wives.

3.2 Determinants

To analyze the determinants of the various payments, we first estimate the probability that such transfers occurs at the time of marriage, and then the amount paid. Explanatory variables are grouped into different sets. First, it is likely that these payments are vastly prescribed by local norms. We therefore have a first set of variables than includes the region of residence of the couple (as a proxy of the region of residence of the parents of the husband), dummies for ethnic group and for the parents of the wife residing in a rural area and well as the year of marriage. Admittedly, these variables might also proxy for wealth given the wide geographic disparities in economic well-being. A second set of variables reflects the endogamy of the match in various dimensions (spouse members of the same family, of the same ethnic groups, or with fathers having the same employment status (whether employer, employee, civil servant, formal or informal worker, farmer...)). Characteristics of the families form the third group of variables: father's employment status, parents alive and size of the sibship of each spouse. Finally, individual characteristics of the wife and husbands form the lasts sets: education and occupation are accounted for. In a first specification, we investigate for each of the three transfers the link between the probability that such payment took place at the time of marriage and those sets of characteristics, for women in their first marriage. Result for all women are provided in the appendix. Table 3 shows a summary of the results, giving the joint significance of explanatory variables by group. The detail of the results is provided in table 7 in the appendix. We then explore the determinants of the amounts of transfers. A tobit estimation of

the payments is conducted (results in table 8 in appendix) and summarized in the same way in Table 4³. Strikingly, the most powerful set of explanatory variables are those related to region, ethnicity and date of marriage. This is true for the 3 types of payments. For bride-price, the characteristics of the wife enter into play as well, her age at marriage affects the probability a bride price is paid, this being lower for older bride, while her education affects its amount: women with secondary or higher education command higher bride price. It is also noteworthy that higher bride-prices are paid when both spouses belong to the same ethnic group, when at least one of the parents of the bride is alive at the time of marriage and if the husband is a civil servant or an employer. This later result reflects the high social status of those positions. Tables 9 and 10 in appendix, that reproduce the same results for all married women including those in their second marriage, show in addition that having previously been married reduces both the probability of a bride-price and its amount. The gift on the other hand seems to be driven more by characteristics of the husband, on both the probability of a gift to be given (particularly strong when the husband is a farmer) and on the value of the gift: husbands at both end of the socio-economic spectrum (civil servant or employer on the one hand, and farmer and educated in koranic school on the other) give higher gifts. Polygamists are less likely to pay a gift when marrying an extra wife. Endogamy plays in a specific way for the value of the gift: Spouses being from the same family is favorable in urban area if they are not from the same ethnic group, which suggest relatively distant cousins. Belonging to the same family in rural areas, or to same ethnic group play against the gift, both in terms of occurrence and value. Finally, the trousseau is more likely to exist if the husband is a farmer, if he has more sisters and when the fathers of the spouse share the same occupation. It is also much more frequent and important for women who marry into a polygamous union as a higher ranked wife. These coefficients are significantly different from zero only when the complete sample of women is considered, including those who are not in their first union. This is due to the fact that first union are rarely as high ranked wife while remarriages happen more often than not in polygamous unions.

It is interesting to note that in total, woman's education affect only the amount of bride price paid, a woman with secondary education commanding bride price higher by nearly 75%

³OLS estimates of the amounts, whether restricted to positive amounts or not, give qualitatively similar results. Results available with the authors.

of the mean level. It doesn't increase the probability a bride price is paid and has no impact on the other types of marriage transfers. The endogamous dimensions of the marriage play little role in the existence of marriage payments, but affect amounts in a significant way. Spouse from the same ethnic group and spouse from the same family play in different direction: same ethnicity increase the amount of bride-price while same lineage if anything decreases it (not significantly different from zero). The converse is true for gifts, except that in rural area, both dimensions decrease the gift. This suggests that inter-ethnic marriages and marriages outside the lineage are less often arranged marriages, so that the direct transfer to the wife can take more importance than the one to the family.

These results suggest that these payments are in large part determined by local norms: in a given region, in a given ethnic group at a given date, there is an average amount to be paid from which the divergence is explained very little by individual characteristics. In total, observed variance is largely unexplained, which could be ascribed to two non-exclusive factors: a first one is measurement error. Indeed, even if we restricted the sample to relatively recent marriages, the recall or reporting might be imperfect. The other possibility is that of the role of unobservable characteristics such as the kindness of the husband, the value he attaches to his wife to be, the outside options on the marriage market of this particular woman...Analyzing how those transfers correlate with wellbeing outcomes of the wife after marriage will help us to assess whether noise dominates or whether the payments recorded carry relevant signal.

Table 3: Existence of Mariage Payments, women in their first marriage

Contribution	Bride Price	Gift	Bagage
	Coresident	Coresident	Coresident
Pvalue for the region and date fixed effect	0.00	0.01	0.00
Pvalue characteristics of the Match	0.78	0.15	0.16
Pvalue characteristics of the Families	0.37	0.13	0.21
Pvalue characteristics of the Wife	0.05	0.53	0.52
Pvalue characteristics of the Husband	0.84	0.05	0.11
Number of married women	451	460	460
Mean of dependant variable	0.87	0.62	0.63
Standard deviation	0.34	0.49	0.48
r2_p	0.21	0.16	0.16
chi2	85.41	75.12	74.59

Note: Source PSF1.

Sample: women in their first marriage, who got married between 1996 and 2006 and currently coreside with their husband.

The table reports p-values for test of joint significance of different sets of variables for the logit estimates of the determinants of the existence of marriage payments. "Region and date fixed effects" include the date of marriage, region and ethnic groups fixed effects, and whether the father comes from a rural area. "Characteristics of the Match" are variables for spouse from the same family, from the same ethnic group and with fathers in the same occupation. "Characteristics of the Families" are occupation of the father of the wife, the number of brothers and sisters of the wife, the number of brothers and sisters of the husband, whether at least one of the parent of the wife, and one of the parent of the husband was alive at time of marriage. "Characteristics of the wife" cover education of the wife, her age, age squared and whether she lives in a rural area. "Characteristics of the Husband" : occupation of the husband and whether he went to coranic school.

Standard errors are in parentheses, clustered at the husband level. * p<0.10, ** p<0.05, *** p<0.01.

Table 4: Determinants of the amount of Marriage Payments

Contribution	Bride Price	Gift	Bagage
	Coresident	Coresident	Coresident
Pvalue for the region and date fixed effect	0.00	0.00	0.00
Pvalue characteristics of the Match	0.43	0.67	0.43
Pvalue characteristics of the Families	0.28	0.34	0.09
Pvalue characteristics of the Wife	0.02	0.44	0.42
Pvalue characteristics of the Husband	0.13	0.00	0.30
Number of married women	464	464	464
Mean of dependant variable	125.34	70.90	59.51
Standard deviation	131.07	99.95	82.20
r2_p	0.02	0.03	0.02
F	3.81	13.15	173.50

Note: Source: PSF1

Sample: women in their first marriage, who got married between 1996 and 2006 and currently coreside with their husband.

The table reports p-values for test of joint significance of different sets of variables for the Tobit estimates of the amount of marriage payments. "Region and date fixed effects" include the date of marriage, region and ethnic groups fixed effects, and whether the father comes from a rural area. "Characteristics of the Match" are variables for spouse from the same family, from the same ethnic group and with fathers in the same occupation. "Characteristics of the Families" are occupation of the father of the wife, the number of brothers and sisters of the wife, the number of brothers and sisters of the husband, whether at least one of the parent of the wife, and one of the parent of the husband was alive at time of marriage. "Characteristics of the wife" cover education of the wife, her age, age squared and whether she lives in a rural area. "Characteristics of the Husband" : occupation of the husband and whether he went to coranic school.

Standard errors are in parentheses, clustered at the husband level. * p<0.10, ** p<0.05, *** p<0.01.

4 Empirical strategy

4.1 Model

We estimate the following equation:

$$Y_{i,h,m} = \alpha_0 + \beta_1 G_i + \beta_2 BP_i + \beta_3 T_i + \gamma X_{i,h,m} + \mu_r + \nu_t + \varepsilon_{i,h} \quad (3)$$

where subscripts i , h , m and r denote respectively individual, household, husband of the in-

dividual and region⁴. $Y_{i,h,m}$ represents an indicator of the wife’s access to household’s resources. We look at two measures for this variable. First, we’ll consider the ratio of per capita consumption in the wife’s cell to the mean per capita consumption in the household. We consider only non-food expenditures as there is little intra-household inequality on food consumption. Second, we use the share of the individual consumption of the wife’s cell that is financed by the husband. We focus on women who are coresiding with their husband, and for the second outcome, we limit ourselves to wives of household heads.

G_i is the gift she received at marriage, BP_i , the bride-price paid and T_i the value of the trousseau. $X_{i,h,m}$ are controls on the wife, her household and her husband. μ_r are region dummies. $\varepsilon_{i,h,m}$ is the error term, clustered at the husband level.

We control for the logarithm of total consumption per capita of the household, the number of children and adults of the household and of the cell, the status of the wife in her household (wife of a monogamous man, first wife of a polygamous man, or wife of a superior rank), as well as for characteristics that appeared as important determinants of the marriage payments: education of the wife, the age at marriage and the type of activities of her father, the father of the husband and the groom.

A positive link between the transfers and the relative non-food consumption of the wife in her household could either be causal, through the impact of marriage payments on women bargaining power in their marriage or be due to unobserved characteristics of the wife and the husband, that affect both the existence and level of marriage payments and the access to household resources.

5 Results

Table 5 shows that the wife’s relative access to non-food consumption in the household is positively related to the value of gift received, but neither to the bride-price paid or to the trousseau brought in the household. This is true as well of the share of the wife’s cell expenditures that

⁴There are 12 regions represented in our sample.

are paid by the husband. Coefficients are significant at the 5% level. The magnitude of this association is sizable. A one standard deviation increase in the gift increases the financial support of the husband by 75% of a standard deviation (31 points or nearly 50% of the mean). This is true controlling for a number of variables that are likely to capture the income of the husband (household per capita consumption, husband's occupation, wife's father's occupation). The wealth of the husband's household of origin is probably not at play either here, as it would also generate a correlation with the bride-price. It rather suggests that the correlation with the gift is driven by unobserved characteristics, that might relate the specificity of the match between these 2 persons, such as her ex-ante bargaining power, or the love of her husband.

Preliminary results also suggest that the amount of the gift is correlated with lower pressure on the wife's fertility, in particular with larger spacing between marriage and first birth. Children outcomes will be further explored.

These results point to the fact that the gift is the marriage payment that where the husband can have some individual margin of manoeuvre, and through which he expresses his kindness or endearment and/or through which he commits to future good behaviour. Any of these would reflect to a relatively good access of his wife to household's resources. Conversely, bride-price which appears to be strongly based on social norms and rather little individualized do not seem to correlate at all with the wife bargaining power into marriage. The trousseau being often financed through contributions of various family members (sisters, aunts etc..) is likely to be correlated more with the wife's family network and as such might well play a role in case of shocks (income shock, divorce...). This point will be explored further.

Table 5: Wife's Access to Household Ressources

	Non Food Expenditures of the wife cell pcap/ Non Food Expenditures of the household pcap	Share of wife's cell expenditures financed by the husband
Gift (millions FCFA 2005)	0.4198** (0.21)	0.6375** (0.25)
Bride price (millions FCFA 2005)	0.1778 (0.18)	0.0787 (0.21)
Trousseau (millions FCFA 2005)	0.0146 (0.23)	-0.0764 (0.39)
Wife belongs to a minor ethnic group	-0.1330** (0.06)	0.0356 (0.08)
Wife with some primary education	0.1314** (0.06)	-0.0267 (0.08)
Wife with secondary or superior education	0.1718** (0.08)	-0.1255 (0.11)
Age of the wife at marriage	0.0048 (0.01)	-0.0084 (0.01)
Ln(hh conso pcap)	-0.1410*** (0.04)	0.0181 (0.05)
Wife lives in a rural place	-0.0169 (0.07)	-0.0696 (0.10)
Constant	2.8162*** (0.51)	0.5714 (0.67)
Region and time FE	Yes	Yes
Other Controls	Yes	Yes
Controls Composition	Yes	Yes
Number of married women	480	248
Mean	0.97	0.65
Standard Deviation	0.49	0.41
r2	0.27	0.25

Note: Source: PSF1.

Sample : women married between 1996 and 2006 and coresiding with their husband . For model(2): sample further restricted to wives of household's head.

OLS estimates. Dependant variable (1): ratio of the wife cell non food expenditure pcap on the non food expenditures of the household pcap. Dependant variable (2): share of the expenditures of the wife's cell that is financed by the husband. All models include controls for the number of children and the number of adults at the cell and household level. They include also controls for the occupation of the husband and the wife's father (five dummies for inactivity, farmer, independant or informal employee, employer/state employed, other/unknown) and the type of marriage: monogam, polygam of rank 1, polygam of higher rank. Standard errors are clustered at the husband level.

Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

6 Conclusion

This paper analyzes the links between the different marriage payments and the welfare of the wife in her marital household, as measured by her access to household resources. Using a unique dataset that records these payments, we show that there exist a link between the gift the wife received at marriage and her access to household's resources, and that this link does

not exist for the bride price. Clearly, endogeneity might explain these correlations, but the fact that it doesn't play in the same way for these two payments is revealing. This rules out that the endogeneity comes from unobserved wealth characteristics. Somehow, the strength of the bride's position at the time of marriage translates both into a higher gift and a better access to household resources henceforth. The unobserved source of endogeneity seems to be mainly due to how strongly the husband desired this wife, or how much he loves her. As a result, the gift (an information rarely collected in household survey) is likely to be a better proxy of wife's bargaining power than bride-price is in the context studied in this paper.

References

- Ambrus, A., Field, E., and Torero, M. (2010). Muslim family law, prenuptial agreements, and the emergence of dowry in bangladesh*. *The Quarterly Journal of Economics*, 125(3):1349–1397.
- Anderson, S. (2007). The economics of dowry and bride price. *The Journal of Economic Perspective*, 21(4):151–174.
- Ashraf, A., Bau, N., J.Nunn, and Voena (2014). Bride price and female education. *pre-print*.
- Becker, G. (1991). *"A treatise on the family"*. Harvard University Press.
- Buggenhagen, B. (2012). *"Muslim Families in Global Senegal. Money takes care of shame"*. Bloomington: Indiana University Press.
- Chan, W. and Zhang, J. (1999). Dowry and wife's welfare: a theoretical and empirical analysis. *Journal of Political Economy*, 107 (4):786–808.
- Corno, L., Hildebrandt, N., and Voena, A. (2016). Weather shocks, age of marriage and the direction of marriage payments. *Working Paper*.
- Corno, L. and Voena, A. (2016). Selling daughters: Age of marriage, income shocks and bride price tradition. *Working Paper*.

- Doss (2011). Intra-household bargaining and resource allocation in developing countries. *The World Bank Research Observer*, 28(1):52–78.
- Gaspart, F. and Platteau, J.-P. (2010). Strategic behaviour and marriage payments: Theory and evidence from senegal. *Economic of development and Cultural change*, 59(1):149–185.
- Kaye, D., Mirembe, F. and Bantebya, G., Ekstrom, A., and Johansson, A. (2005). Implications of bride price for domestic violence and reproductive health in wakiso district, uganda. *African Health Sciences*, 5(4):300303.
- Lowes, S. and Nunn, N. (2016). Bride-price and the well-being of women.
- Mbaye, L. M. and Wagner, N. (2017). Bride price and fertility decisions: Evidence from rural senegal. *The Journal of Development Studies*, 53(6):891–910.
- Quisumbing, A. R. and de la Briere, B. (2000). Women’s assets and intra-household allocation in rural bangladesh: Testing measures of bargaining power. *FNCD Discussion Paper*.
- Vreyer, P. D. and Lambert, S. (2017). Intra-household inequalities, inequality and poverty in senegal. *Working Paper*, WP DIAL DT/2017-05.
- Vreyer, P. D., Lambert, S., Safir, A., and Sylla, M. (2008). Pauvret et structure familiale : Pourquoi une nouvelle enquete ? *Stateco*, 102:5–20.

A Appendix

Table 6: Number of Marriages according to the type of transfers

	Number	Percentage	Cumulated Percentage
All transfers	234	34.67	34.67
Bride Price and Trousseau	103	15.26	49.93
Gift and Trousseau	36	5.33	55.26
Gift and Bride Price	108	16.00	71.26
Only a Bride Price	125	18.52	89.78
Only a Gift	36	5.33	95.11
Only a Trousseau	7	1.04	96.15
No transfers	26	3.85	100.00
Total	675	100.00	

Note: reading: line 1: in 34,67% of the cases, all types of transfers occurred.

Table 7: Existence of Marriage Payments , women in their first marriage

	Bride Price	Gift	Bagage
<u>Ethnicity and Type of Area</u>			
Wife is serere	0.09 (0.63)	0.25 (0.44)	-0.20 (0.44)
Wife is poular	-0.69 (0.48)	0.32 (0.31)	-0.44 (0.31)
Wife is from an other ethnic group	-0.74 (0.60)	-0.23 (0.39)	-0.71* (0.42)
Father of the wife rural	1.73** (0.75)	-0.29 (0.45)	-0.31 (0.44)
<u>Characteristics of the Match</u>			
Couple from the same family	0.23 (0.50)	0.64 (0.42)	-0.21 (0.38)

Continued on next page

Table 7 – continued from previous page

	Bride Price	Gift	Bagage
Information about family unknown	0.45 (0.79)	0.32 (0.63)	-0.50 (0.58)
Same Family*Father of the wife rural	-1.13 (0.82)	-0.48 (0.52)	-0.03 (0.50)
No info on Same Family*Father of the wife rural	-0.10 (1.61)	-0.82 (0.84)	-0.13 (0.79)
Couple from the same ethnic group	0.15 (0.47)	-0.75* (0.39)	-0.54 (0.36)
Characteristics of the Families			
Fathers with same professional status	0.12 (0.37)	-0.07 (0.25)	0.44* (0.25)
Fathers's professionnal status unknown	0.43 (0.75)	-1.04** (0.50)	0.87 (0.57)
Father or the wife farmer	0.32 (0.47)	-0.53 (0.35)	-0.47 (0.33)
Father of the wife state-employed or employer	-0.06 (0.47)	0.09 (0.36)	-0.09 (0.37)
Profession of the father of the wife unknown	-0.41 (0.86)	-0.40 (0.74)	-1.56** (0.74)
Number of brothers of the wife alive	-0.18* (0.11)	0.09 (0.08)	0.09 (0.08)
Number of sisters of the wife alive	0.05 (0.10)	0.14** (0.07)	-0.03 (0.07)
Number of brothers of the husband alive	-0.16 (0.11)	0.02 (0.08)	-0.10 (0.08)
Number of sisters of the husband alive	0.18* (0.10)	0.12* (0.07)	0.16** (0.07)

Continued on next page

Table 7 – continued from previous page

	Bride Price	Gift	Bagage
Parents of the husband alive at marriage	0.27 (0.53)	0.12 (0.34)	-0.09 (0.35)
Parents of the wife alive at marriage	0.44 (0.65)	-0.11 (0.60)	-0.01 (0.79)
Characteristics of the Wife			
Wife with some primary education	-0.22 (0.40)	0.29 (0.35)	0.14 (0.32)
Wife with secondary or superior education	0.65 (0.54)	-0.19 (0.44)	-0.41 (0.44)
Age of the wife at marriage	-0.55** (0.22)	0.04 (0.09)	0.12 (0.10)
Wife lives in a rural place	-0.68 (0.69)	0.66 (0.41)	0.10 (0.44)
Characteristics of the Husband			
Husband farmer	-0.15 (0.62)	0.93** (0.37)	0.91** (0.38)
Husband state-employed or employer	-0.18 (0.46)	0.56 (0.36)	0.25 (0.34)
Profession of the husband unknown	-0.37 (0.44)	-0.01 (0.30)	0.16 (0.30)
Husband has been to coranic school	-0.37 (0.43)	0.29 (0.28)	0.31 (0.28)
Marriage			
In a polygamous union, first rank	-1.01 (0.74)	0.08 (0.54)	0.18 (0.58)
In a poly. union, sec. or further rank	-0.31 (0.54)	-0.62* (0.34)	0.57 (0.36)

Continued on next page

Table 7 – continued from previous page

	Bride Price	Gift	Bagage
Constant	7.35***	-0.55	-0.55
	(2.74)	(1.50)	(1.71)
Region and date FE	Yes	Yes	Yes
Nn	451	460	460
pval_region	0.00	0.01	0.00
Mean of dependant variable	0.87	0.62	0.63
Standard deviation	0.34	0.49	0.48
r2_p	0.21	0.16	0.16
chi2	85.41	75.12	74.59

Note: Source: PSF1.

Sample: Women in their first marriage, married between 1996 and 2006 and currently coresiding with their husband.

Logit estimates. Omitted category for the ethnic group is wolof (the largest ethnic group). Omitted category for every work-related variable corresponds to the category "independant or informal employee". The omitted category for the wife's education is "no education".

Standard errors are in parentheses, clustered at the husband level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Marriage Payments (in 1000 CFA Francs), women in their first marriage

	Bride Price	Gift	Bagage
Ethnicity and Type of Area			
Wife is serere	-3.24	0.20	-16.33
	(24.98)	(26.02)	(20.48)
Wife is poular	-28.83	21.44	-28.31*
	(20.68)	(19.04)	(14.53)
Wife is from an other ethnic group	-59.54**	-36.99	-22.52
	(24.39)	(23.69)	(21.89)

Continued on next page

Table 8 – continued from previous page

	Bride Price	Gift	Bagage
Father of the wife rural	24.47 (25.25)	-4.83 (25.39)	-16.39 (20.18)
<hr/> Characteristics of the Match <hr/>			
Couple from the same family	-20.15 (23.24)	39.80* (23.64)	5.60 (21.66)
Information about family unknown	20.75 (40.94)	7.10 (39.63)	-26.12 (31.80)
Same Family*Father of the wife rural	1.36 (30.35)	-51.43* (31.11)	-12.62 (25.93)
No info on Same Family*Father of the wife rural	-14.54 (52.96)	-15.16 (56.82)	30.40 (40.58)
Couple from the same ethnic group	37.53* (22.61)	-73.90*** (26.08)	-27.89 (19.00)
<hr/> Characteristics of the Families <hr/>			
Fathers with same professional status	25.64* (14.81)	-6.12 (14.62)	14.23 (12.38)
Fathers's professionnal status unknown	18.46 (33.35)	-23.45 (42.53)	47.33* (25.11)
Father or the wife farmer	5.19 (15.94)	-10.14 (18.78)	-24.39* (14.74)
Father of the wife state-employed or employer	29.09 (23.49)	8.24 (19.67)	-7.93 (20.81)
Profession of the father of the wife unknown	-12.37 (45.46)	-19.85 (55.80)	-89.69** (38.17)
Number of brothers of the wife alive	2.23 (4.07)	6.17 (4.37)	1.69 (3.62)
Number of sisters of the wife alive	0.62	5.75	0.04

Continued on next page

Table 8 – continued from previous page

	Bride Price	Gift	Bagage
	(4.06)	(4.24)	(3.55)
Number of brothers of the husband alive	2.27	3.97	-4.21
	(4.40)	(4.47)	(3.77)
Number of sisters of the husband alive	4.32	6.13*	8.34**
	(3.25)	(3.53)	(3.24)
Parents of the husband alive at marriage	5.84	-23.31	-1.96
	(21.71)	(22.52)	(17.88)
Parents of the wife alive at marriage	68.24**	-33.74	24.41
	(26.75)	(39.74)	(27.83)
Characteristics of the Wife			
<hr/>			
Wife with some primary education	-3.57	10.64	7.45
	(17.72)	(18.62)	(15.49)
Wife with secondary or superior education	97.15***	20.89	18.17
	(28.06)	(26.92)	(26.78)
Age of the wife at marriage	-4.30	1.61	3.62
	(3.92)	(4.56)	(3.78)
Wife lives in a rural place	-3.43	41.53*	36.41*
	(22.42)	(23.53)	(20.01)
Characteristics of the Husband			
<hr/>			
Husband farmer	30.17	74.43***	20.54
	(19.84)	(21.95)	(14.31)
Husband state-employed or employer	52.00**	60.69***	26.19
	(20.95)	(20.65)	(20.08)
Profession of the husband unknown	12.27	2.22	7.06
	(16.60)	(18.07)	(14.29)
Husband has been to coranic school	6.97	37.22**	12.87
	(15.75)	(18.82)	(13.51)

Continued on next page

Table 8 – continued from previous page

	Bride Price	Gift	Bagage
<hr/>			
Marriage			
In a polygamous union, first rank	-19.71 (31.16)	27.74 (39.36)	25.24 (34.76)
In a poly. union, sec. or further rank	3.16 (18.85)	-25.31 (19.49)	23.42 (14.51)
Constant	29.75 (82.01)	54.19 (98.28)	-16.94 (74.53)
sigma	130.67*** (7.42)	125.66*** (8.72)	103.61*** (7.56)
Region and date FE	Yes	Yes	Yes
<hr/>			
Number of married women	464	464	464
pval_region	0.00	0.00	0.00
Mean of dependant variable	125.34	70.90	59.51
Standard deviation	131.07	99.95	82.20
r2_p	0.02	0.03	0.02
F	3.81	13.15	173.50
<hr/> <hr/>			

Note: Source: PSF1.

Sample: women in their first marriage, married between 1996 and 2006 and currently coresiding with their husband.// Tobit estimates. Omitted category for the ethnic group is wolof (the largest ethnic group); for occupation variables, is "independent or informal employee". The omitted category for the wife's education is "no education".

Standard errors are in parentheses, clustered at the husband level. * p<0.10, ** p<0.05, *** p<0.01.

Table 9: Existence of Marriage Payments - All married women

	Bride Price	Gift	Bagage
<hr/>			
Ethnicity and Type of Area			
<hr/> <hr/>			

Continued on next page

Table 9 – continued from previous page

	Bride Price	Gift	Bagage
Wife is serere	-0.23 (0.57)	0.26 (0.42)	-0.34 (0.41)
Wife is poular	-0.35 (0.43)	0.47 (0.29)	-0.39 (0.29)
Wife is from an other ethnic group	-0.62 (0.50)	-0.04 (0.37)	-0.64 (0.41)
Father of the wife rural	1.60** (0.70)	-0.27 (0.42)	-0.29 (0.41)
Characteristics of the Match			
Couple from the same family	0.33 (0.48)	0.65* (0.39)	-0.15 (0.37)
Information about family unknown	0.66 (0.74)	-0.03 (0.58)	-0.57 (0.58)
Same Family*Father of the wife rural	-1.02 (0.74)	-0.47 (0.49)	-0.10 (0.49)
No info on Same Family*Father of the wife rural	-0.36 (1.47)	-0.39 (0.78)	-0.17 (0.80)
Couple from the same ethnic group	-0.38 (0.43)	-0.65* (0.36)	-0.54 (0.35)
Fathers with same professional status	0.01 (0.34)	-0.10 (0.23)	0.43* (0.25)
Fathers's professionnal status unknown	0.47 (0.72)	-0.90* (0.50)	0.77 (0.57)
Characteristics of the Families			
Father or the wife farmer	0.37 (0.42)	-0.19 (0.31)	-0.47 (0.32)
Father of the wife state-employed or employer	0.04	0.12	-0.13

Continued on next page

Table 9 – continued from previous page

	Bride Price	Gift	Bagage
	(0.43)	(0.34)	(0.35)
Profession of the father of the wife unknown	-0.37	-0.14	-1.74**
	(0.84)	(0.75)	(0.74)
Number of brothers of the wife alive	-0.20**	0.09	0.10
	(0.10)	(0.07)	(0.08)
Number of sisters of the wife alive	0.01	0.13*	-0.04
	(0.09)	(0.07)	(0.07)
Number of brothers of the husband alive	-0.16*	0.05	-0.10
	(0.09)	(0.07)	(0.08)
Number of sisters of the husband alive	0.19**	0.10	0.15**
	(0.09)	(0.07)	(0.07)
Parents of the husband alive at marriage	-0.29	0.11	-0.14
	(0.49)	(0.30)	(0.32)
Parents of the wife alive at marriage	0.16	0.14	0.05
	(0.54)	(0.51)	(0.60)
Characteristics of the Wife			
Wife with some primary education	-0.25	0.33	0.05
	(0.36)	(0.33)	(0.29)
Wife with secondary or superior education	0.53	0.07	-0.49
	(0.53)	(0.41)	(0.42)
Age of the wife at marriage	-0.10	0.04	0.14
	(0.13)	(0.08)	(0.09)
Wife lives in a rural place	-0.70	0.33	0.01
	(0.58)	(0.38)	(0.41)
Children before marriage	0.01	0.13	0.04
	(0.43)	(0.29)	(0.32)
Number of precedent children unknown	0.00	-0.92	1.69**

Continued on next page

Table 9 – continued from previous page

	Bride Price	Gift	Bagage
	(.)	(0.79)	(0.81)
Ex-Divorcee	-0.36 (0.78)	0.21 (0.49)	-0.50 (0.50)
Ex-Widow	-1.48* (0.85)	-0.33 (0.77)	0.67 (0.97)
Characteristics of the Husband			
Husband farmer	0.26 (0.58)	0.72** (0.35)	0.91** (0.36)
Husband state-employed or employer	-0.26 (0.40)	0.28 (0.33)	0.22 (0.30)
Profession of the husband unknown	-0.27 (0.42)	-0.18 (0.29)	0.09 (0.29)
Husband has been to coranic school	-0.21 (0.39)	0.46* (0.26)	0.39 (0.27)
Marriage			
In a polygamous union, first rank	-1.08 (0.72)	-0.34 (0.46)	-0.01 (0.53)
In a poly. union, sec. or further rank	-0.48 (0.47)	-0.32 (0.30)	0.71** (0.34)
Constant	3.00 (2.00)	-0.85 (1.36)	-0.99 (1.40)
Region and date FE	Yes	Yes	Yes
Number of married women	495	516	516
pval_region	0.00	0.01	0.00
Mean of dependant variable	0.85	0.62	0.62
Standard deviation	0.35	0.49	0.48
r2_p	0.19	0.15	0.17

Continued on next page

Table 9 – continued from previous page

	Bride Price	Gift	Bagage
chi2	85.15	82.72	87.20

Note: Source : PSF1.

Sample: women married between 1996 and 2006 and coresiding with their husband.

Logit estimates. Omitted category for the ethnic group is wolof (the major ethnic group). Omitted category corresponds to the category "independent or informal employee" for every work-related variable. Coefficients related to the dummy "inactiv" are not displayed because they are never significant. Major ethnic groups are wolof, poular and serer. The omitted category for the wife's education is "no education".

Standard errors are in parentheses, Standard errors are clustered at the husband level. * p<0.10, ** p<0.05, *** p<0.01.

Table 10: Marriage Payments (in 1000 CFA Francs) - All married women

	Bride Price	Gift	Bagage
Ethnicity and Type of Area			
Wife is serere	-4.06 (23.66)	3.09 (23.87)	-21.84 (19.12)
Wife is poular	-20.23 (18.66)	26.50 (16.69)	-20.51 (12.95)
Wife is from an other ethnic group	-46.27* (24.65)	-27.28 (21.52)	-19.68 (19.76)
Father of the wife rural	22.61 (23.51)	-4.16 (22.71)	-14.90 (18.59)
Characteristics of the Match			
Couple from the same family	-23.15 (22.93)	39.52* (21.71)	5.44 (20.63)
Information about family unknown	11.38	-3.83	-31.66

Continued on next page

Table 10 – continued from previous page

	Bride Price	Gift	Bagage
	(36.23)	(34.49)	(28.94)
Same Family*Father of the wife rural	6.00	-50.86*	-10.86
	(29.50)	(29.01)	(24.50)
No info on Same Family*Father of the wife rural	-6.87	-1.07	34.72
	(49.36)	(51.34)	(38.13)
Couple from the same ethnic group	30.74	-64.24***	-29.51
	(20.66)	(23.40)	(18.02)
Characteristics of the Families			
Fathers with same professional status	23.89*	-4.88	10.68
	(13.86)	(13.44)	(11.32)
Fathers's professionnal status unknown	21.86	-14.99	42.57*
	(33.07)	(41.54)	(25.10)
Father or the wife farmer	6.75	3.58	-20.26
	(14.76)	(16.48)	(13.60)
Father of the wife state-employed or employer	32.42	9.24	-4.74
	(22.99)	(18.23)	(19.73)
Profession of the father of the wife unknown	-2.30	-2.82	-95.38**
	(43.31)	(54.40)	(38.34)
Number of brothers of the wife alive	0.23	5.92	1.58
	(3.85)	(3.88)	(3.24)
Number of sisters of the wife alive	0.32	4.36	-0.56
	(3.84)	(3.94)	(3.24)
Number of brothers of the husband alive	0.51	4.69	-4.24
	(3.96)	(3.91)	(3.47)
Number of sisters of the husband alive	6.23*	4.95	7.76**
	(3.53)	(3.30)	(3.05)
Parents of the husband alive at marriage	4.57	-17.94	-3.68

Continued on next page

Table 10 – continued from previous page

	Bride Price	Gift	Bagage
	(19.29)	(18.80)	(15.04)
Parents of the wife alive at marriage	54.64***	-5.47	13.43
	(20.33)	(33.18)	(23.90)
Characteristics of the Wife			
<hr/>			
Wife with some primary education	8.31	13.22	-0.24
	(17.14)	(17.07)	(14.41)
Wife with secondary or superior education	97.98***	31.09	11.68
	(26.71)	(25.21)	(26.14)
Age of the wife at marriage	-2.33	3.12	4.52
	(3.67)	(4.20)	(3.43)
Wife lives in a rural place	-21.95	27.76	23.26
	(22.15)	(21.87)	(18.39)
Children before marriage	-11.01	9.14	14.39
	(18.31)	(17.05)	(15.51)
Number of precedent children unknown	2.92	-50.27	16.76
	(39.16)	(47.29)	(24.78)
Ex-Divorcee	-17.20	-32.05	-53.41**
	(32.35)	(24.16)	(22.35)
Ex-Widow	-88.30***	-47.88	-30.63
	(31.91)	(38.16)	(32.44)
Characteristics of the Husband			
<hr/>			
Husband farmer	37.51**	61.21***	21.04
	(18.36)	(20.00)	(13.17)
Husband state-employed or employer	36.03*	46.87**	23.21
	(19.65)	(18.50)	(18.45)
Profession of the husband unknown	14.52	-6.78	1.08
	(16.08)	(16.55)	(13.52)

Continued on next page

Table 10 – continued from previous page

	Bride Price	Gift	Bagage
Husband has been to coranic school	12.85 (14.98)	41.33** (16.90)	17.37 (12.10)
<hr/> Marriage <hr/>			
In a polygamous union, first rank	-24.98 (28.17)	1.79 (36.21)	9.25 (31.79)
In a poly. union, sec. or further rank	2.48 (17.51)	-17.48 (16.16)	24.07* (12.88)
Constant	9.67 (78.06)	1.22 (87.95)	-16.67 (66.80)
sigma	131.36*** (7.52)	120.94*** (8.32)	101.39*** (7.28)
<hr/> Region and date FE <hr/>			
Number of married women	520	520	520
pval_region	0.00	0.00	0.00
Mean of dependant variable	118.40	66.58	56.12
Standard deviation	130.10	95.99	79.55
r2_p	0.02	0.02	0.02
F	4.99	15.52	195.84

Note: Source : PSF1.

Sample: women married between 1996 and 2006 and coresiding with their husband.

Tobit estimates. Omitted category for the ethnic group is wolof (the largest ethnic group). Omitted category corresponds to the category "independant or informal employee" for every work-related variable.

The omitted category for the wife's education is "no education".

Standard errors are in parentheses, clustered at the husband level. * p<0.10, ** p<0.05, *** p<0.01.