Chapter 10

Why Dowries?

Parents transfer wealth to their children in many ways. The dowry is distinctive because it is a large transfer made to a daughter at the time of her marriage. Dotal (dowry giving) marriages were common in the Near East, Europe, East Asia, South Asia, and pockets of the Americas. Although the custom has largely disappeared in the western world, it remains popular in South Asia.

The standard economic model of dowries, implicit in the seminal work of Gary Becker (1981), assumes that dowries (and brideprices) are used as pecuniary transfers to clear the marriage market.[1] The model has two predictions. When grooms are relatively scarce, brides pay dowries to grooms; when brides are relatively scarce, grooms pay brideprices to brides. Moreover, a dowry is a component of bridal wealth. As other components of bridal wealth grow, dowries will disappear and may be replaced by brideprices.

While very insightful and adopted by both economists and non-economists, the standard economic model of dowries faces two potential objections. First, if the main purpose of dowries is to clear the marriage market, how do marriage markets clear in societies without dowry or brideprice? In most modern societies that previously had dowries, brideprices did not emerge when dowries disappeared. It is implausible that the value of other components of bridal wealth and/or the relative value of women in marriage rose until

---

[1]General expositions are in Becker (1981), Grossbard-Shechtman (1993), Rao (1993), and Tertilt (2001). Specific models include Boserup (1970), which focuses on the contribution of women in agriculture, hypergamy models, which argue that wives value their husbands' status as well as wealth (e.g. Anderson 2001, and Edlund 2001), and son preference models (e.g. Das Gupta and Li 1999).

the value of dowry and brideprice needed to clear the marriage market were zero and then remained unchanged thereafter. Second, the standard model of dowries cannot account for why in many dotal societies the timing of intergenerational transfers is gender specific, with parents assigning dowries to their daughters and leaving bequests to their sons. This feature of dotal societies has been first noticed by the anthropologist Jack Goody (1973), and his observation has been confirmed in different dotal societies (see the survey on past civilizations in Section 2).

The objective of this chapter is to provide a theory of dowries that is consistent with the standard model without being open to the two objections discussed above. At the market level, our model of marriage market clearing follows the standard economic model. We assume that the marriage market, with or without dowries, clears by wealth matching between brides and grooms.[2] From this point of view, our theory of dowries has nothing new to say about the equilibrium determination of bridal wealth. At the individual level, we also conform to the standard model by focussing on the substitution between different components of bridal wealth. However, the standard model of dowries implicitly postulates that pecuniary transfers at the time of marriage are part of the least costly mix of providing bridal wealth. This assumption precludes a discussion of the circumstances in which dowries are or are not part of the least costly mix of providing bridal wealth. Such a discussion, though, is relevant for understanding the modern disappearance of the dowry. The novelty of our theory of dowries is the assertion that *the modern disappearance of dowries is due to a change in the environment for producing bridal wealth and not to a change in the relative values of brides versus grooms. Thus brideprices do not have to appear when dowries disappear.* Also, the general absence of pecuniary transfers at the time of marriage in modern industrial societies suggests that these transfers are an inefficient way to redistribute resources between husbands and wives, and not that there is no redistribution between spouses.[3]

We present a specific environment in which dowries are optimal and also discuss when they are not optimal. Following the pioneering work on altruis-

---

[2]In transferable models of the marriage market, complementarity in husband's and bride's wealth is sufficient to generate positive assortative matching in marriage by wealth (Becker). In non-transferable models, wealth matching occurs when husband's and wife's wealth are public goods in marriage (Lam 1988; Peters and Siow (2002)).

[3]Lundberg, Pollak, and Wales (1997), and Chiappori, Fortin, and Lacroix (2002) and the references therein provide empirical evidence of such redistribution.

tic bequests by Becker (1981) and strategic bequests by Bernheim, Shleifer, and Summers (1985), we study an intra family incentive problem. Our model begins with the observation that dowries occur primarily in monogamous virilocal societies, where married daughters leave their parental home and married sons do not. We argue that in these societies, altruistic parents use dowries and bequests to mitigate a free riding problem between siblings. Since married sons live with their parents, they have a comparative advantage in working with the family assets relative to their married sisters. Absent any incentive problem, parents should not assign any dowry but rather give the daughters their full share of the estate through bequests. However, if married daughters fully share in the parents' bequests, their brothers will not obtain the full benefits of their efforts in extending the family wealth and, therefore, will supply too little effort. While bequests are more efficient for distributing wealth to daughters, they have poor incentive effects for sons. Thus, parents will want to assign dowries that are large enough, and consequently bequests to daughters which are small enough, to mitigate the disincentive for their sons. Our model is in the spirit of Zhang and Chan (1999). While the point is not developed in their work, they maintain that daughters in virilocal societies may prefer dowries because they will have difficulties in getting their share of the natal families' wealth otherwise.

Our theory suggests that dowry contracts, which may be complicated, should not contain claims on shares of income generated with the bride's family assets. In other words, a married daughter may not be only discriminated against in her parents' bequests as observed by Goody. She may also be excluded from inter vivos claims on income generated from her natal family's assets. However, we will show with data from a premodern economy that the provision of dowries and the exclusion of daughters from bequests do not necessarily indicate that parents value their sons' welfare more than their daughters'.

The nexus between virilocality and dowries helps us explain the disappearance of dowries in previously dotal societies. Virilocal societies are primarily agricultural economies and/or economies where the gains for children to remain in the family business is substantial. As the labor market in a dotal society becomes more developed, as the demand for different types of workers grow, children are less likely to both hold their parents' occupations and to work for their families. The return to investing in general rather than family-specific human capital also increases. The use of bequests to align work incentives within the family becomes less important. Since it is costly

to provide a dowry, the demand for dowry (within the family) will fall as the need to use bequests to align the work incentives of sons falls. Instead of the dowry, parents will transfer wealth to both their daughters and sons as human capital investments and bequests. Therefore, the development of labor markets will be important in reducing the role of dowries. When dowries become an inefficient source of brides' wealth, they will wither. Unlike the standard economic model, we argue that there is no connection between the disappearance of dowries and the appearance of brideprices.

We compare the predictions of our theory vis-a-vis the historical development of dowries, bequests, brideprices, and marriage gifts in various civilizations of the past. Our theory of dowries is consistent with narrative evidence from ancient Near Eastern civilizations, ancient Greece, Roman and Byzantine empires, western Europe from 500 to 1500 AD, the Jews from antiquity to about 1300, Arab Islam from the seventh century to modern times, China, Japan, early-modern England, modern Brazil, and North America. Some of the predictions of the model are also consistent with quantitative evidence from a unique data set of four thousand marriage contracts and many legacies from medieval and early Renaissance Tuscany we gathered at the state archives of Florence. Although it is not the main aim of our this chapter, we also discuss the absence of dowries and the prevalence of brideprices in contemporary African societies. Lastly, we compare our theory with the recent developments of the dowry system in India, where dowries instead of withering seem to become more important.

Before presenting the model and discussing the evidence, some additional remarks are in order to clarify the limit of our contribution. First, we take virilocality as given and proceed in analyzing dowries and bequests under that assumption. Rosenzweig and Wolpin (1985) and Guner (1998) provide rationales of why agricultural societies are primarily virilocal.

Second, our theory has nothing new to say about the equilibrium determination of bridal wealth, a focus of much of the existing literature. It is also silent on the substitution between dowry and the bride's human capital or labor supply. We focus on the internal organization of the family whereas most of the existing literature on dowries focuses on how families respond to external shadow prices. Thus our model has nothing to say about the efficacy of that research.

Third and most important, our model provides a particular environment in which dowries emerge endogenously. To the extent that virilocality and the associated free riding concern apply, we expect to see dowries in that society.

However, ours is not necessarily the only environment to support dowries.[4] There are likely to be other roles for dowries related to the organization of intra and inter families transactions. For example, in the spirit of the strategic bequest literature, one might argue that virilocality also means that married sons affect their parents' welfare more than married daughters. Parents may use bequests as a reward to affect their sons' behavior. This reward scheme is not needed for married daughters and so they may get dowries.

This chapter summarizes results from Botticini and Siow 2002 (hereafter BS) which contains a comprehensive survey on dowries, extensive citations and proofs of all propositions in this chapter.

10.1 Dowries, Bride Prices, and Bequests: A Comparative-Historical Perspective

We summarize here the survey in BS. In drawing a historical profile of marriage payments and intergenerational transfers, four features of each society are taken into account: *(i)* the prevalence of dowries, bride prices (paid by the groom to the bride's family), or marriage gifts (from the groom to the bride herself), *(ii)* the existence of individual property rights, which determines whether parents can transfer or bequeath property to their children, and the laws and customs regarding inheritance (primogeniture, partible inheritance, exclusion of daughters from bequests), *(iii)* the rules governing marriage (monogamy versus polygamy), and *(iv)* the post-marital residential pattern (virilocal, uxorilocal, neolocal).[5]

A summary of the findings are in Table 1.

[TABLE 1 HERE]

With some exceptions, many past civilizations characterized by dowries were also virilocal and monogamous; husbands often simultaneously gave marriage

---

[4]Non-economists also consider other models of dowry (Goody 1973, 1976, 1990; Choinackj 1975, 1990; Hartung 1982; Klapisch-Zuber 1985; Schlegel and Eloul 1988; and Carroll 1991). See Harrell and Dickey (1985) for a survey.

[5]A uxorilocal marriage occurs when the groom moves into his bride's household. Neolocal defines those marriages in which the groom and the bride live with neither their families.

gifts (or endowments) to their wives. The relative importance of dowries from parents to their daughters and marriage gifts from husbands to their wives greatly varied from time to time.

In some dotal societies, married daughters also received bequests whereas they did not in other societies. Although widespread in isolated communities, dowries were not common in colonial Americas or Australia, while they were being used at the same time in the source countries. Also, dowries are not widespread in contemporary Africa, where brideprices prevail.

10.2   A Model of Dowries

Consider a family with two children, a son and a daughter, in a virilocal society. After marriage, the son continues to live and work with his parents. After marriage, the daughter leaves her natal household and moves into her parent-in-laws household.

The parents have one unit of initial capital to allocate between their two children. Let x be the share of capital allocated to the son. This allocation to the son is unobservable by outsiders because the son lives with his parents and thus his capital is intermingled with his parents' assets. $1 - x$ is the share of initial capital that is allocated to the daughter in the form of a dowry. Given their initial capital allocations, each child can choose to either work, $e = 1$, or shirk, $e = 0$. If a child with initial capital z chooses effort e, then his or her gross wealth is $(1 + e)z$. The cost of effort is $(1 + e)z$ for the son and $\beta(1 + e)z$ for the daughter. We assume $\beta \geq 1$ because the son, living with his parents, has family specific skills in working with family assets and his parents can also help him in his work.[6] It also represents liquidation cost if the family has to sell assets to transfer wealth to the daughter. The cost of effort is proportional to the amount of capital allocated because the child can do other things with his or her time.[7]

---

[6]This assumption is in the spirit of Rosenzweig and Wolpin (1985) model, which explains the comparative advantage of sons who live with their parents in working the family farms as a consequence of land-specific returns to experience associated with weather variability. Outsiders, such as a married daughter and her husband, do not have the same family specific skills. The same argument can apply to crafts and trade activities whenever family specific skills are important in a given business.

[7]We have also investigated the case where the cost of effort to the daughter is $(\beta + e)z$. Here β does not affect e. The qualitative predictions of this model are the same as those in the text. A referee pointed out that another formulation is to discount her return to

Since the son is living with his parents, the gross wealth that he produces cannot be separated from his parents' wealth. The parents may give to their daughter some of the gross wealth created by the son in the form of a parental bequest. In contrast, because the married daughter has left home, her parents cannot expropriate and give to the son any of her gross wealth. Thus there is a fundamental asymmetry in terms of parental control over the children's gross wealth.

Given the son's initial capital x and effort e_s, $y_s = (1 + e_s)x$ is the *gross* wealth that he produces. Since he is living with his parents, we interpret y_s also as his parents' estate. If he does not receive the entire estate upon the death of his parents, his parents have bequeathed some of his wealth to his sister. Let b be the share of gross wealth that is retained by him as his inheritance from his parents. Then his *net* wealth is

$$w_s = b(1 + e_s)x$$

In addition to influencing his consumption, his net wealth w_s also affects whom he is likely to marry and his utility from that marriage. In this chapter, we assume that there is assortative matching by wealth in the marriage market.[8] Let $h(w_s)$ denote the wealth of the woman whom he is able to attract. When there is positive assortative matching in marriage market equilibrium, $h'(.) > 0$. His utility from marriage will depend on his own wealth, w_s, and the wealth of his spouse, $h(w_s)$. Since his spouse's wealth depends on his wealth, the son values his net wealth using the indirect utility function $U(w_s)$ where $U(.)$ is increasing and concave. Thus his utility is:

$$V(b, x, e_s) = U(b(1 + e_s)x) - x(1 + e_s)$$

His sister will get a bequest of $(1 - b)(1 + e_s)x$ from her parents. With her dowry, $1 - x$ and effort e_d, her *gross* wealth is $y_d = (1 + e_d)(1 - x)$. Her *net* wealth is

$$w_d = (1 - b)(1 + e_s)x + (1 + e_d)(1 - x)$$

The wealthiest spouse that she can attract is $h^{-1}(w_d)$. Her utility from marriage will depend on her own wealth, w_d, and the wealth of her spouse,

---

effort relative to her brother rather than increase her relative cost of effort as we have done. The qualitative predictions again are similar.

[8]Existence of equilibrium in wealth matching marriage models with parental investments is shown in Siow and Zhu (1998); and Peters and Siow.

$h^{-1}(w_d)$. For analytic convenience, let her also value her net wealth, w_d, with the same indirect utility function $U(.)$. Her utility is:

$$v(b, x, e_d) = U((1 - b)(1 + e_s)x + (1 + e_d)(1 - x)) - \beta(1 - x)(1 + e_d)$$

Assuming that parents value the welfare of both their children, let parental utility be:

$$V(b, x, e_s) + v(b, x, e_d) \tag{10.1}$$

To analyze the potential conflicts between parents and their children, let
Assumption 1

$$\text{(i) } U' > \beta$$

$$\text{(ii) } \frac{U'}{2} < 1$$

In order to analyze the relevance of Assumption 1, consider allocation A where the entire initial capital is allocated to the son, the son exerts effort and the final gross wealth is divided equally between the son and the daughter. Let allocation B be where the entire initial capital is allocated to the son, he exerts no effort and the final gross output is divided equally between the children.

Inequality (i) above implies that, for any dowry and fixed bequest, the daughter will prefer to exert effort rather than not. Since the cost of effort is higher for her than her brother, for any initial capital allocation, he will also exert effort if he keeps all his final gross output. With inequality (i), parental utility is higher under allocation A rather than allocation B. That is, the welfare from effort is higher than the welfare from shirking. The parent will prefer the son to work on all the initial capital (because he has a lower cost of effort) and to divide the final gross wealth equally between the children. Equal division of final wealth is efficient because it equates the marginal utility of consumption between the two children.

However, the implication of inequality (ii) is that the son will prefer to shirk if he only gets half the gross wealth from his effort. That is, he will not work hard if he has to share equally in the bequest with his sister. Thus the second inequality shows the free riding problem between brother and sister.

The parents cannot implement allocation A if the son can choose his own effort.

The objective of the parents is to maximize children's welfare represented by equation (10.1) taking into account the strategic behavior of their children.[9] This game has four stages. In the first stage, the parents allocate capital between the children. In the second stage, the daughter chooses her effort level. She chooses her effort first because (i) daughters receive their dowry upon marriage and they marry earlier than sons, and (ii) the parents may not let the son have full control over his share of capital until the parents retire. In the third stage of the game, the son chooses his effort level.[10] Lastly, the parents choose the bequests. We will solve for the subgame perfect Nash equilibrium of this game.

Proposition 1: *Let $\beta > 1$. In the subgame perfect Nash equilibrium, the equilibrium choice of x, x^*, satisfies $\frac{1}{2} < x^* \leq \frac{2}{3}$. Both children exert effort in equilibrium. The equilibrium choice of b, b^*, satisfies $\frac{3}{4} < b^* < 1$. Equilibrium parental utility is:*

$$W^*(\beta) = U(1) - 2x^* + U(1) - 2\beta(1 - x^*)$$

Proof: BS.∎

Proposition 1 states that, anticipating strategic behavior by their children, the parents should allocate some of the initial capital to the daughter as a dowry. The daughter receives more than a third but less than half of the initial capital as a dowry. After the children choose their optimal effort levels, the parents will optimally choose their bequests. The son receives more than three quarters of the estate. In fact, the daughter may receive no bequest. Proposition 1 rationalizes Goody's observation that daughters receive their inheritance primarily in the form of dowries whereas sons receive theirs primarily in the form of bequests.[11]

Although $W^*(\beta)$ is the best the parents can achieve, this equilibrium allocation of resources by the parents is inefficient. The daughter exerts effort to increase her wealth even though it is less costly for the son to do

---

[9]There is also a free riding problem between brothers. Free riding might explain primogeniture and the custom of cash payments to sons who joined the military or church in some past European societies.

[10]There is no pure strategy equilibrium in simultaneous effort levels for some allocations of capital. The mixed strategy equilibrium in this context is not plausible given the difference in the ages of marriage between sons and daughters.

[11]When $\beta = 1$, $x^* = \frac{1}{2}$ and $b^* = 1$.

so. Allocation A generates more utility for the parents. However, due to the strategic behavior of both parents and their children, it is not implementable. Instead under the equilibrium allocation, the parents provide the daughter with a sufficiently large dowry such that they will not want to redistribute too much wealth away from their son *after* he exerts effort. Under this circumstance, both the son and the daughter will provide effort.

Proposition 1 also implies that final net wealth of both the daughter and the son are the same. This implication is due to our assumption, for analytic convenience, that the indirect utility functions for net wealth are the same for both children. In general, if children have different indirect utility functions for net wealth, equality of net wealth does not follow.

In some dotal societies, by custom and/or law, parents are restricted from granting bequests to their daughters. Then all parents can do to affect their children's welfare is the initial division of capital.

Proposition 2: *A custom and/or legal restriction disinheriting daughters may increase parental welfare.*

Proof: BS.∎

The trade off behind Proposition 2 is as follows. Without disinheriting daughters, parents can equate wealth across their children. As β increases, the efficiency cost of dowry increases and parents prefer to give smaller dowries. However, there is a minimum dowry size below which the son will shirk. If daughters are disinherited, parents do not worry about a minimum dowry size but have to deal with the inequality of wealth between their children instead.

We may summarize the above discussion as follows. Since bequests are chosen after children choose their effort levels, the children recognize that altruistic parents may use bequests to redistribute wealth among the children. Anticipating this redistribution, the children may free ride on each other's effort. To deter this free riding, parents will provide dowries to daughters even though daughters are less efficient in using the capital than sons. Bequests to daughters will be smaller than that for sons. Daughters may even be disinherited. However, the size of the bequest to a daughter is not necessarily informative about parental valuation of their daughter and son.

Our theory also explains the timing of the dowry. The transfer is made when the daughter marries and leaves home, that is, when she no longer contributes to increasing her parents' wealth.

The inability of the parents not to change bequests *after* they observe the output of the children is critical. If parents can commit, they should

give all the initial capital to the son, and write a will such that the son will get no bequest if he does not exert effort and he gets half the output if he exerts effort. Again, allocation A can be implemented if parents can commit to punishing their son for shirking.

10.3   Theory and Historical Evidence

Our model generates some predictions, which we discuss with respect to the historical cases.

Prediction 1: Virilocality and Dowries. *(i) In virilocal societies with individual property rights, in which parents can transfer wealth to their children, dowries will emerge to mitigate a potential free-riding problem among siblings.*

In virilocal societies so far apart from each other both geographically and temporally, such as the ancient Near Eastern civilizations, ancient Greece and Rome, the Byzantine empire, the Jews from antiquity to about 1300, Arab Islam, Sung China, India, Japan, and medieval and early modern Europe, we have dowries (see Table 1).

There is a negligible number of neolocal societies (the bride and groom set up their own household), which have the custom of dowry. According to the ethnographic data from Murdoch (1967), these are the Cheremis of Finnic descent in the 1890s, and the Hutsul (eastern Slavs) around 1900. Nine neolocal cultures have brideprices, and in eight neolocal societies there are no transfers occurring at marriage.

The absence of dowries in the Dravidian kinship region in India may be explained by the features of post-marital residence and marriage patterns there. Cross-cousin marriages are a very common pattern, which means that marriage often occurs among close kin in which gift-giving associated with a daughter's marriage is not required (Trautman 1993b). Moreover, unlike the Hindu marriage pattern, virilocality is not the norm among the Dravidians practicing cross-cousin marriages (Karve 1993, 60–62).

Perhaps the most glaring exception to virilocality and dowries is in contemporary sub-Saharian Africa in which virilocality appears associated with brideprices instead of dowries. Data on hundreds of cultures we coded from the *Ethnographic Atlas* by George P. Murdoch (1967) confirm this pattern (Table 2).

[TABLE 2 HERE]

Of the 131 African societies with brideprices, 110 are also virilocal. However, unlike the past societies described above, which were mostly monogamous, most African societies with brideprices are characterized by polygyny (79.4 are polygynous societies, 16.8 are characterized by limited or occasional polygyny, while only 3.8 percent are monogamous cultures). Also, seven percent of the societies with brideprices and virilocality have collective instead of individual property rights. In this context, dowries cannot exist simply because parents cannot transfer wealth to their children, regardless of gender. However, whether the exception is due to the polygynous nature of many African societies, the type of agricultural practices as discussed by Boserup, or the lack of private property rights over land or cattle is unclear.

(ii) In virilocal society, regardless of gender, parents will provide lump-sum transfers to those children who marry off and leave the paternal household.

In the Byzantine empire children who moved out of their natal households, *regardless* of gender, received dowries and were excluded from bequests (Laoui 1998, 151–60). Regardless of gender, a distinction was made between $\upsilon\pi\varepsilon\xi\upsilon\sigma\iota\upsilon\iota$ (children living in their parents' households) and $\varepsilon\xi\upsilon\pi\rho\upsilon\iota\kappa\upsilon\iota$ (children married off with a dowry and who were not living in their parents' households). The prevailing custom was that unmarried or married children who lived with, worked for, and took care of, their parents, were the heirs; in contrast, those children who married off with dowries were not considered among the $\kappa\lambda\eta\rho\upsilon\upsilon\upsilon\mu\upsilon\iota$ (the heirs). Thus, the dowry was not an advance on inheritance but the major share of the parental estate that a daughter or son marrying off obtained.

The same free riding concern may explain why in medieval and early modern England, younger sons who left their natal families to become soldiers (or to join the clergy), received cash gifts rather than bequests (Gies and Gies 1987, 169; Stone and Fawtier Stone 1984). In medieval and Renaissance Italy, daughters who became nuns and sons who entered monasteries also received dowries (Botticini 1999). From the viewpoint of incentives and the free riding problem, children who joined the monastic life were similar to those who married off and left their natal families: in both cases, their parents gave dowries to those who left and made the children who stayed the heirs.

(iii) In contrast, in uxorilocal societies where the groom moves into his in-laws' household and contributes to increase their wealth, bride's parents

do not provide their daughter with a dowry but make the son-in-law share in the bequests.

Evidence from ancient Greece, the Byzantine empire, Sung China, and Japan during the Edo period indicates that in uxorilocal marriages, when the groom moved into his in-laws household and contributed to increase the bride family's wealth, bride parents did not provide a dowry to their daughter but made the son-in-law share in the bride family's bequests (Botticini and Siow 2002, p. 4–13).

Prediction 2: No Income Sharing in Dowry Contracts. *To mitigate the disincentives for sons to work hard with their family assets, dowry contracts should not contain any income sharing provision.*

When dowries are used to provide incentives for sons to work, it is important that dowry contracts do not unravel the incentive effect. Since families may be liquidity constrained and parents worry about the treatment of their married daughter by the in-laws, a dowry contract may be complicated. It may contain deferred payments and state contingent payments. The contract may also contain clauses as to the disposition of the dowry when and how the couple separates. However, if our explanation is correct, a dowry contract should minimize the sharing of profits generated with the family assets after the bride leaves her natal household.

We are able to document this feature of dowry contracts in three societies quite far apart from each other. Dowry contracts did not have income sharing clauses in ancient Athens (Table 3).

[TABLE 3 HERE]

Dowries consisted of cash, rents of houses, or interest payments from mortgages. In the cases cited by the famous Athenian orators Lisias, Iseus, and Demosthenes, profits from land and other commercial enterprises in which the effort of the bride's brothers affected the outcome, did not appear as part of the bride's dowry.

No income sharing was also a characteristic of dowry contracts among the Jewish communities in the Mediterranean, as reported in the documents from the Cairo Geniza (Goitein 1978).[12] Table 4 indicates the composition

---

[12]We are very grateful to Yossef Rapoport for suggesting us to look into Goitein (1978) for data on Jewish marriage contracts from the Cairo Geniza. Jews thought that writings

of dowries provided by Jewish fathers living in numerous countries in the
Mediterranean in the tenth–twelfth centuries.

[TABLE 4 HERE]

Almost in all documents, the dowry consisted of clothing, bedding, jewelry,
copper, and furniture; cash was not a frequent item, while a third of the
documents listed houses or portion of houses as part of the dowries. Yet, no
marriage contract contained the clause that the dowry should be paid with
a share of the profits generated from the bride family's business.

   More systematic evidence is available from medieval and Renaissance Flo-
rence, where virilocality was the norm. Table 5 reports data on about four
thousand dowry contracts we collected at the states archives of Florence.

[TABLE 5 HERE]

Most dowries were paid in cash, or consisted of clothing, bedding, and fur-
niture. In the thirteenth century, a tiny proportion (0.9 percent) of urban
dowries consisted on land holdings. The proportion increased to 8.4 in the
decades across the Black Death of 1348, and then it declined to 3.5 per-
cent in the early fifteenth century. In each period, a negligible percentage
of contracts contained income sharing clauses. The rarity of income sharing
clauses was not due to the lack of knowledge of share contracts. In both
trade and in agriculture, share contracts were well known in medieval and
early Renaissance Tuscany (Ackerberg and Botticini 2002). However, in the
context of dowry contracts, income sharing agreements were rare.

   The evidence from ancient Athens, the Jewish communities in the Mediter-
ranean in the high Middle Ages, and medieval and Renaissance Tuscany sup-
ports the argument that dowries mitigated a potential free riding problem by
not including profit sharing arrangements with the brides' families' assets.

   Of course, dowry contracts helped solve other problems. More than half
of the Cortona matched contracts had clauses entailing deferred payments.
A typical specification was the bride's household promising to pay one-third

---

on which there was mentioned the name of God should not be destroyed; therefore, they
deposited thousands of documents dealing with land sales, business contracts, loans, dowry
contracts, last wills, charitable gifts, and settlements, in a geniza, a lumber room, in
Old Cairo in Egypt. Based on this wealth of documents, Goitein (1967–88) has written
an impressive social and economic history of the Jewish and Arab communities in the
Mediterranean from the tenth through the thirteenth centuries.

of the dowry after the first year of the marriage, one-third after two years, and the remaining one-third after three years. Deferred payments offered three advantages. The bride's parents may be liquidity constrained. Also, consistent with Zhang and Chan (1999), deferred payments provided incentives for the groom's family not to mistreat their daughter-in-law. Lastly, the bride's family could avoid paying the dowry if she died during childbirth.

The absence of income sharing clauses in dowry contracts in past societies is apparently at odds with the evidence on marriage choices and risk sharing from some contemporary developing countries. For example, Rosenzweig and Stark (1989) have shown that in rural India, when the bride's family faces adverse income shocks, the groom's family aids the bride's family. In such village economies, parents strategically place their daughters in marriage to provide insurance for both families. However, at a closer look, there is no contradiction between our finding of no income sharing in dowry contracts in past societies and risk sharing through marriage in contemporary India. The absence of income sharing clauses in dowry contracts in past civilizations does not mean that the groom's and bride's family did not share income risk at all.

Prediction 3: Exclusion of Daughters from Bequests. *In virilocal societies, daughters will receive most of the wealth transfers from their parents through dowries and not through bequests. Daughters are more likely to receive bequests when there are no brothers. In this case, the free riding problem does not exist and parents make their daughters inherit the family estates.*

Two types of evidence support this prediction. First, narrative evidence indicates that in various societies daughters obtained no dowries but got bequests when there were no brothers. In ancient near eastern civilizations, ancient Greece, Byzantine empire, medieval western Europe, Arab Islam, Japan from the Edo period, among the Germanic tribes in the high Middle Ages, and among the Jews daughters could not receive bequests unless there were no surviving brothers in the household (Botticini and Siow, p. 4-13). In contrast, in the Roman republic and empire and in Sung China daughters *could* in principle receive bequests even if they had surviging male siblings although no evidence is available to document whether they *did* receive bequests.

Second, micro data we gathered from a sample of last wills written in

medieval and Renaissance Florence supply systematic evidence that parents rarely transmitted their wealth to daughters via bequests (Table 6).[13]

<center>[TABLE 6 HERE]</center>

In the thirteenth century, twenty-five percent of the Florentine testators having sons and daughters left bequests to their daughters. Two centuries later, the percentage was 21 percent. In those instances in which parents left bequests to daughters, the size of the bequest to a daughter was small with respect to the dowry she got at the time of her marriage. Thus, the timing of intergenerational transfers in medieval and Renaissance Tuscany provides support to our model: daughters most often obtained their shares of their natal families' wealth through dowries and not through bequests.

Prediction 4: Parental Valuation of Daughters and Sons. *While daughters can be excluded from parental bequests when receiving dowries, they are not necessarily discriminated against their brothers if the size of dowries is similar to what the brothers receive as bequests. In other words, the small bequests (if any) received by daughters in dotal societies is not an indication of discriminatory treatment of daughters versus sons.*

Historians have maintained that since dowries disinherit women, they bring an unequal distribution of family wealth among female and male siblings (Cohn; Hughes; and Klapisch-Zuber). However, they have not presented systematic evidence to substantiate such a claim. The problem has to do with the type of evidence required to compare dowries and bequests in a given household. Dowry contracts indicate only the amount of the dowry; there is no way to know how many siblings a bride had, or how wealthy her family was. Last wills inform us about how a testator assigned his property, but they rarely provide the value of the family estate.

Fifteenth-century Tuscany is a fortunate case because the 1427 Florentine *catasto* (census and property survey) enables one to match brides, grooms, and testators in such a way that it is possible a systematic comparison between the size of dowries assigned to daughters and the bequests to their

---

[13]In the Florentine statutes of 1322–25, in case of intestacy male descendants (sons, and in their absence, grandsons, brothers, and nephiews) had priority in receiving the family estate with respect to daughters and other female descendants. However, the statutes granted testamentary freedom: a testator could leave his estate to both his sons and his daughters if he/she wished (Bellomo 1961; Kirshner 1985, 1991; Gregory 1987; Kuehn 1991).

brothers. We find that the existence of dowries, by itself, did not prevent daughters from receiving roughly an equal, or higher, share of their parental wealth (Table 7).

[TABLE 7 HERE]

In our sample of marriage contracts for Cortona the median dowry (70 gold florins) was larger than the median share of family wealth per child (53 gold florins). Even if parents did not leave any bequests to their daughters in Cortona, this data suggests that sons did not receive disproportionately larger shares of parental wealth. As for medieval and Renaissance Florence, which according to some historians was the worst place for a woman to live, we find that the median dowry was 500 florins and the median share of family wealth per child was 468 florins.

An alternative theory of dowries which is also consistent with Goody's observation and virilocality. Due to virilocality, the married son still has to look after his parents. If parents defer most of the wealth transfer to their son as a bequest, this conditional bequest would ensure that the son takes appropriate care of his parents. Since the married daughter does no longer look after her parents, there is no need to defer the wealth transfer to the daughter. We agree with the need to discipline the son to ensure that parents obtain the appropriate level of care. However, if this was the main motive for bequests to sons in dotal societies, the "expected" bequests to sons seem small relative to the dowries their sisters obtained. If married daughters did not have to care for their parents after marriage and married sons continued to do so, why were dowries so large relative to bequests for sons in early Renaissance Florence and Cortona?

That dowries should be substantial relative to bequests (for either sons or daughters) is unique to our model. The standard economic model of dowries does not have such an implication. If our model is incorrect, there should be societies that systematically gave small dowries. The survey in BS indicates that this was not the case.

10.4   Wither Dowries?

A theory of dowries has to explain its disappearance in previously dotal societies. The nexus between virilocality and dowries helps us explain the disappearance of dowries. Virilocal societies are primarily agricultural economies

and/or economies where the gains for children to remain in the family business is substantial. As the labor market in a society becomes more developed, as the demand for different types of workers grow, children are less likely to work in the same occupations as their parents. They are also less likely to work for their families. The use of bequests to align work incentives within the family becomes less important. As the labor market develops, the value of human capital investments also rises. Since it is costly to pay a dowry, the demand for dowry within the family will fall as the need to use bequests to align the work incentives of sons fall. Instead of assigning dowries, parents will transfer wealth to both their daughters and sons as human capital investments and bequests. Therefore, the development of labor markets will be important in reducing the role of dowries.

Moreover, as the labor market develops and sons work outside the family business, the gains from living in an extended family become smaller. Instead of virilocal households, sons are also more likely to set up their own, neolocal, households when they marry. Again, the use of bequests for sons to align their work incentives decreases. Thus the role of dowries as a mechanism to mitigate the free riding problem among married children also declines.

When dowries become an inefficient source of brides' wealth, they will disappear. Unlike the standard economic model of dowries, we argue that there is no connection between the disappearance of dowries and the appearance of brideprices.

We present evidence from North America and Brazil to support our theory regarding the disappearance of the dowry. We also discuss the case of India, where dowries have not disappeared despite modernization.

The North American Experience.   While dotal marriages occurred in isolated communities in colonial North America, it was not a widespread practice (Shammas, forthcoming).[14] For example, in Connecticut in the late eighteenth century, between 46 and 67 percent of married daughters were assigned inter vivos transfers, likely at the time of their marriage, from their natal families. In the 1820s, only 40 percent received such transfers, often consisting of bedding and cooking tools, and far less than the daughters' shares in their natal families' estates (Ditz 1986).

---

[14]We thank Carole Shammas for her willingness to share with us her forthcoming work on the history of the household in North America. The references to the works by Ditz and Vickers we cite in the text are taken from chapter 4 of the forthcoming book by Shammas.

From the point of view of intergenerational transfers, a father's death greatly exceeded in importance the marriage of children. British American fathers left their estates to their children, but they commonly did so in their wills or according to the intestacy provisions of their colony (Shammas, Salmon, and Dalhin 1997). For example, seventeenth-century New England community studies indicate that very little inter vivos transfer of land to sons occurred (Vickers 1994).

The contrast between the European pattern of dotal marriages and the North American experience, which received the emigrants from the old world, can be explained in light of our theory of dowries. North America during colonial times was an immigrant society. By definition, first generation immigrants were not working with their parents' assets in the home country and the free riding problem does not apply. In later times, the colonies and early United States enjoyed the highest level of internal migration in its history between the late 1760s and the first third of the nineteenth century (Shammas, forthcoming, chapter 4). The settlement of North America meant that many individuals left their parental homes to settle in new territory, again violating the virilocal assumption needed for a dotal society.

Also, with the emergence of corporate capitalism in the nineteenth century, which lead to the separation between ownership and control, sons were less likely to work in the family business and parents were less concerned about transmitting intact the family farm or firm to their children (Shammas, Salmon, and Dalhin 1997).

Brazil. In general, there is little data on the decline of dowries in a society due to the large time span of historical data needed to track its decline. An exception is Nazzari (1991) who studied the evolution of dowries in São Paulo, a coastal community in Brazil, from 1600 to 1900. She analyzed probate records of wealthy, propertied, Paulistas. In the period under study, all children were legally entitled to equal shares of the estate of the deceased parent. A daughter who had a dowry had the option of "returning" the dowry to the estate and asking for her share of the reconstituted estate. Thus probate records explicitly or implicitly (when daughters did not share in the estate) accounted for dowries paid.

In the seventeenth century, most daughters of property owners received a dowry at marriage. In the middle of the eighteenth century, 9 percent of property owners allowed their daughters to marry without a dowry. In the

nineteenth century, three quarters of property owners allowed their daughters to marry without a dowry. The value of the dowries also fell through the centuries. While few daughters in her sample "returned" their dowries to their parents' estates in the seventeenth century, more daughters did so in the eighteenth century and they all did in the nineteenth century.

In the seventeenth century, wealthy Paulistas derived most of their wealth from agriculture. Most married sons lived with, and worked for, their parents. Gold was discovered in the interior of Brazil in the eighteenth century. According to Nazzari (1991, 165),

> The great patriarchal power over adult offspring that was the rule in seventeenth-century São Paulo gradually diminished. In the eighteenth century sons migrated, transported mules and oxen to the mines, or plied long-distance trade, making it more difficult for their fathers to control them. With the growth of individualism in the nineteenth century, sons became even more independent of their fathers in their business lives, and both sons and daughters were acquiring freedom in the selection of a marriage partner. Such freedom was itself a consequence of the decline of the practice of dowry.

While her theory of dowries is different from ours, Nazzari's selection of the economic forces that led to the decline of dowries in São Paulo is consistent with our argument. By the time (nineteenth century) most daughters chose to "return" their dowries, the use of bequests to align work incentives within the family was largely irrelevant.

India.   Dowries are still widely popular in South Asia. In the past fifty years, in both North and South India, the custom of the dowry has spread to social and economic groups that did not have it in earlier times; at the same time, dowry values have undergone a sharp increase (Sharma 1993; and Lardinois 1996b, 293). Notice that when talking about dowry in contemporary India, one refers to the goods that the groom and his family demands to the bride family at the time of the marriage, over which the bride retains no ownership. This has nothing to do with the *stridhana*, the goods (clothes, jewelry, etc.) that the bride's family gives to the bride and over which she has property rights. This distinction is very important because it clearly separates India from the past civilizations we surveyed; in these past societies,

the dowry referred to the real property, movables, and cash that the bride's family transferred to the bride and over which she retained ownership.

With this distinction in mind, Caldwell, Reddy, and Caldwell (1983) have put forward two explanations for dowry inflation in India: (i) the marriage squeeze hypothesis, and (ii) hypergamy (increased demand for more socioeconomically successful husbands). The marriage squeeze hypothesis maintains that due to population growth and the gender age gap at marriage, marriageable men are scarce relative to marriageable women. The econometric evidence on this hypothesis is not conclusive (Edlund 2000; Rao).

Our interpretation of the Indian case is close to the hypergamy hypothesis. Our theory predicts that urbanization and modernization in India will eventually eliminate the use of dowries. However, urbanization (and the consequent modernization) is proceeding slowly in India (Mills and Becker 1986). In 1901, 89 per cent of the population lived in rural communities. In 1981, 76.3 per cent of the population continued to live in rural communities, and net rural to urban migration contributed less than 19 percent to the total growth in the Indian urban population between 1971 and 1981 (Mohan 1985; Rosenzweig and Stark, 906). India was and still is primarily a rural and virilocal society.

While urbanization and modernization was and is slow, there is a substantial difference in living standards between rural and urban regions. Mohan showed that the urban-rural ratio in per capital domestic product increased from 1.83 in 1950 to 2.56 in 1970. Given the slow pace of urbanization, there is a large return for a rural bride to be able to marry an urban groom. As Caldwell, Reddy, and Caldwell (1983, p. 347) emphasize,

> "Parents desire their daughters to marry educated men with urban jobs, because such men have higher and more certain incomes, which are not subject to climatic cycles and which are paid monthly, and because the wives of such men will be freed from the drudgery of rural work and will usually live apart from their parents-in-law. In a sellers' market, created by relative scarcity, there was no alternative but to offer a dowry with one's daughter."

Consistent with this explanation, one finds that in South India, especially in Madras, in the 1930s the practice of dowry spread firstly among the Brahman community where men gained early access to European education and

salaried employment in the public sector (Lardinois 1996b, 295). Moreover, all over India, new opportunities to earn cash wages in factories, government jobs and white collar occupations have been secured more by men than women (Sharma 1993, 349). Therefore, even in the urban context, brides' potential contribution to family income has become relatively smaller when compared to prospective grooms: once again, the hypergamy theory may explain the expansion and intensification of the practice of dowry occurring in recent decades.[15]

According to our theory regarding the disappearance of dowries, dowry inflation is likely to be transitory and driven by the slow pace of urbanization in India and the income differences between the two sectors. As urbanization proceeds and modernization takes place, the relative supply of educated grooms should increase and the urban-rural income differences should fall. Dowry inflation should eventually disappear.[16] The Indian experience suggests that in a transitional society, from virilocal/rural to neolocal/urban, the relative values of some grooms may rise and the use of dowries may expand before withering away.

Our explanation for dowry inflation does not concern castes directly. The caste system may reinforce the custom of dowry in two ways. First, to the extent that higher castes urbanize earlier and lower castes do so later, dowry inflation will evolve from higher to lower castes. Second, as castes are often defined by occupations, individuals from a given caste find it difficult to leave their occupation because they cannot leave their caste; sons are more likely to follow their fathers' occupations. Thus, the existence of the caste system in India can make the transition from virilocal to neolocal society (and the consequent disappearance of dowries) slower with respect to other developing economies. Although the Indian experience does not contradict our model, we are agnostic as to what the correct model is.[17]

---

[15]Evidence from contemporary China provides further support to the hypergamy theory. During the 1940s characterized by war and disorder, many tenant farmers in the villages managed to acquire land from their landlords and became rich. These newly wealthy households in the villages arranged marriages with elite families in towns; in doing so, they provided larger and larger dowries (Siu 1990, 16–17).

[16]Since 1961, dowries are illegal in India but the ban is unenforced.

[17]Anderson (forthcoming) has an alternative hypergamy model where modernization and caste inheritance rules interact to generate an increase in the relative values of high caste grooms and dowry inflation.

10.5   Concluding Remarks

We presented a particular environment, virilocality and the associated free riding problem, in which dowries emerge endogenously. We show that there is support for the model in historical and contemporary records. However, there is no reason to believe that our environment is the only rationale for dowries. Instead, the spirit of the model is to break the straightjacket of the standard economic model to consider other rationales for dowries and bride prices.

Our model also brings out a link between virilocality and wealth transfers within and across families. There are other implications of this link. For example, there is often confusion about who gets the dowry, the groom's natal family or the newly weds. But in a virilocal society, this distinction is hard to make. Whether daughters are discriminated against in bequests in virilocal societies is also hard to determine. What share of the parents' estate is due to the efforts of their sons? If this share is not known, how can one tell from a will whether parents favor their sons or daughters? How much of the bequest is a return to the son for looking after his parents?

TABLE 1
Marriage Payments and Intergenerational Transfers in Past Civilizations

Civilization	Time Period	Virilocality (V) Uxorilocality (U)	Mono-gamy	Bride parents give dowry to bride	Groom parents give gifts to groom at marriage	Groom gives marriage gift to bride	Groom pays bride price to bride parents	Married (unmarried) daughters *can* receive bequests	Dowry > than marriage gift
Sumerian/ Assyrian/ Babylonian	3000-1000 BC	V	Y/N	Y	N	Y	N	Y (Y)	Y
Greece	Homeric	V	Y	Y	N	Y	Y	? (Y)	N
		U	Y	N	Y	Y	?		
	Classical	V	Y	Y	N	N	N	N	Y
Rome	Early republic	V	Y	Y	N	N	N	N (Y)	Y
	200 BC-early empire	V	Y	Y	N	N	N	Y (Y)	Y
	Late empire	V	Y	Y	N	Y	N	Y	N
Germanic tribes	100-500	V	N	N	N	N	Y	N	N
	500-1000	V	Y/N	Y	N	Y	N	Y	?
Byzantine empire	500-1400	V	Y	Y	N	Y	N	N (Y)	Y
		U	Y	N	Y	Y	N	Y (Y)	
Jews	Biblical								
	900-1300	V	Y	Y	N	Y	N	?	Y
Arab Islam	650-1400	V	N	Y	?	Y	Y	N	?
Western Europe	800-1000								
	1000-1200	V	Y	Y	N	Y	N		
	1200-1900	V	Y	Y	N	Y	N	Varies	Y
China	700-300 BC	?	N (elite)	Y	N	N	Y	?	?
	Han 200 BC-200 AD	?	Y	?		?	?	?	?
	T'ang 600-900		Y	Y	N	Y	N	?	N
	Sung 900-1200	V	Y	Y	N	Y	N	Y	Y
		U		N	Y	N	N		
India									

Notes: Y = Yes, N = No.

Table 2

Post-Marital Residence, Polygyny, and the Transfer of Real Property

in African Societies with Brideprices

	Post-marital residence	
Parents transfer property to[a]	Virilocal	Else[d]
Male children	51.8	19.0
Other family members[b]	29.0	66.7
None[c]	7.2	4.7
All children	0.0	9.5
All children (smaller share to daughters)	11.8	0.0
N	110	21

	Extent of polygyny
Societies with polygyny	79.4
Societies with occasional/limited polygyny	16.8
Societies with monogamy	3.8
N	131

Source: George P. Murdoch. Ethnographic Atlas. Pittsburgh: University of Pittsburgh Press, 1967.

Notes: The numbers in the columns are percentages. Murdoch coded information on 862 societies from the five continents. For these cultures various ethnographic variables are coded, such as the mode of marriage, marital residence, community organization, settlement pattern, linguistic affiliation, the existence of slavery, etc. However, to avoid including two or more societies whose cultures are very similar since they are derived from a recent common source, the 862 societies are grouped into 412 clusters, whose cultures are genetically closely related. The information in Table 2 refers to the clusters.

[a] The transfer of property includes both inter vivos transfers and bequests.

[b] "Other family members" include: uncles, aunts, cousins, brothers, and nephews of the individual who transfers property.

[c] This group includes those societies where land is held collectively (e.g., tribal or clan land). In this instance, individuals cannot transfer real property because they do not have individual property rights on assets. In these eight societies, the transfer of movable property (such as cattle) occurs in the following way: in three cases, movable property is transferred to male children only, in four cases to other family members, in one case no information is provided.

[d] "Else" includes all other post-marital residence patterns, such as uxorilocal, neolocal, ambilocal, and avunculocal marriages.

Table 3: Dowry Contracts in Athens, V-IV Centuries B.C.

Orators mentioning dowry contracts	Number of daughters	Goods forming the dowry[a]
Lisias	2	40 minas ?
	2	30 minas 30 minas
	1	1 talentum
Iseus	2	20 minas 20 minas
	1	1000 drachmas
	1	rent from a house (40 minas)
	1	25 minas
	?	20 minas 20 minas
Demosthenes	?	50 minas
	1	2 talenta
	1	1 talentum or 80 minas
	?	1 talentum
	?	100 minas (?)
	2	rent from a house (= 40 minas) 40 minas

Source: Leduc (1991), page 293.

Note: In the case of two daughters, each row in the cells in the third column refers to the dowry of one of the two daughters.

[a] One talentum was worth 60 minas, one mina was worth 100 drachmas.

Table 4: Dowry Contracts Among Jews in the Mediterranean, 933–1186 A.D.

Contract characteristics	Percentage of contracts
Payment (movables)	91
Payment (cash)	5
Payment (houses)	29
Payment (land holdings)	1
Profit sharing clause	0
N	61

Sources: We reconstructed these data from the marriage contracts reported in Goitein (1978), pp. 364–93.

Note: Goitein (1978) reports information on about 300 marriage contracts and other records regarding marriage payments. Only 61 of these documents list in details the type of goods forming the dowry.

Table 5: Dowry Contracts in Florence, 1260–1435

Years	1260–99		1340–60		1420–1435	
	Urban	Rural	Urban	Rural	Urban	Rural
Contract characteristics						
Payment (movables)	2.8	0.4	15.6	15.4	14.6	19.4
Payment (cash)	96.1	99.2	91.1	94.9	95.7	94.6
Payment (houses)	4.8	1.2	6.7	2.5	4.5	0.9
Payment (land holdings)	0.9	1.2	8.4	6.4	3.5	1.7
Profit sharing clauses	0.0	0.0	0.2	0.5	0.6	0.1
Median dowry[a]	181.8	136.3	197.3	65.7	885.6	146.8
Average dowry[a]	406.3	161.8	574.6	94.1	1643.0	181.5
Annual wage of skilled workers[a,b]	182	—	175[c] / 214[c]	—	258	—
N (total = 3925)	105	261	464	348	1298	1449

Sources: State Archives of Florence, Notarile Antecosimiano, 409 volumes of notarial contracts.

Note: "Urban" refers to marriages where at least one of the two spouses resided in the city of Florence. "Rural" refers to marriages where both spouses lived in villages in the Florentine countryside.

[a] All figures are in constant (1420-35) lire (the money of account). We converted the values of dowries in gold florins (the circulating currency together with silver coins) into the corresponding values in lire by using the conversion rates provided by C. de la Ronciere, Prix et salaires à Florence au XIV siècle, p. 517, table 86; R. Goldthwaite and G. Mandich, Studi sulla moneta fiorentina, pp. 85–100.

[b] Data on Florentine wages were kindly supplied to us by Paolo Malanima. The figures indicate annual average wages. See also Malanima (1999; 2001).

[c] 133 and 219 were the annual average wages in the decades 1340–1350 and 1350–1360, respectively.

Table 6: Bequest Behavior Toward Daughters in Florence, 1260–1435

	Households with both sons and daughters		
Time period	Testators leaving bequests to daughters	Testators not leaving bequests to daughters	N^a
1260–1299	25%	75%	20
1420–1435	21%	79%	85

Sources: State Archives of Florence, Notarile Antecosimiano, 300 volumes of notarial deeds.

[a] We coded all (59) last wills surviving for the period 1260–1299. As indicated in the table, 20 testators has both sons and daughters. Meanwhile, we coded about 325 last wills of urban testators for the period 1420–1435 (about 10 percent of the last wills available for this time period). Of these 325 last wills, 85 testators had both sons and daughters.

Table 7: Dowries to Brides and Bequests to Bride's Siblings in Tuscany, 1420–1435

Town	Median dowry to the bride (in gold florins)	Median "bequest" to bride's siblings (in gold florins)	N
Cortona	70	53	222
Florence	500	468	315

Sources: State Archives of Florence, Notarile Antecosimiano.

Notes: The median "bequest" to the bride's siblings has been calculated in the following way: we matched the bride's household in the dowry contract with the corresponding household in the Florentine census of 1427. From there we obtained information regarding the bride household's wealth and the number of siblings. We then divided the wealth by the number of siblings: this is an estimate of the bequest to each of the bride's siblings. Also, notice that all figures are in gold florins. We chose to present all values in gold florins instead of lire (the money of account) because the data on wealth (and, consequently, the estimated bequests) were given in gold florins in the Florentine catasto of 1427.