

Why Dowries?

Maristella Botticini and Aloysius Siow

February 2002

Abstract

When married daughters leave their parental home and their married brothers do not, altruistic parents provide dowries for daughters and bequests for sons in order to mitigate a free riding problem between their married sons and daughters. The theory has predictions on the form of the dowry contract, the exclusion of daughters from bequests, and the decline of dowries in previously dowry giving societies. These predictions are consistent with historical evidence from ancient Near Eastern civilizations, ancient Greece and Rome, thirteenth-century Byzantium, western Europe from 500 to 1500 AD, the Jews from antiquity to the Middle Ages, Arab Islam from 650 AD to modern times, China, Japan, medieval and Renaissance Tuscany, early-modern England, modern Brazil, North America, and contemporary India.

Keywords: dowries, bequests, bride prices, marriage markets, intergenerational transfers, free-riding, virilocal, medieval, Tuscany.

JEL classification: J1, N3.

1 Introduction

See published article.

2 Dowries, Brideprices, and Bequests: A Comparative-Historical Perspective

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).¹

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 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.

We present details of our findings below. Readers may skip to the presentation of the model without loss of continuity.

Ancient Near Eastern Civilizations, Greece, and Rome. Dowry (*sheriktum*) and virilocality seem to have coexisted in such ancient civilizations as the Sumerian, Akkadian, and Babylonian in the third and second millennia BCE (Glassner 1996, 105–22). Virilocality was the norm: a daughter left her natal family upon marriage. The dowry could consist of land, slaves or jewels, tools, and furniture. At the time of the betrothal, the groom offered a marriage gift (*terhatum*), usually in cash, to the bride’s household, who in turn bestowed it to the bride herself together with the dowry. The Hammurabi Code established that the marriage gift should be equal to one *mina* (= 60 *shekels*) for a patrician, and a third of a *mina* for common folks; unlike the dowry, however, it was optional and in later Babylonian times it became less frequent (Jones 1904, 123). If the husband died or divorced his wife, she was entitled to keep both her dowry and the marriage gift.² The husband could also bequeath property to his wife, which she could use as long as she did not remarry. Equal bequests were the norm in some regions (e.g. Babylonia), while the eldest son obtained a larger share in other places (such as Assyria). Married daughters were excluded from inheriting the families’ estates, unless there were no sons; in contrast, unmarried daughters who lived with their parents received bequests.

Dowries and virilocality were also central features of marriage customs in both ancient Greece and Rome.³ Even when living in separate houses, married sons kept strong economic links with their natal families. In the Greece described in the Iliad and Odyssey (IX–VIII centuries BCE), the groom paid a brideprice (*hèdna*), often consisting of livestock, to the bride household, and offered gifts to the bride in addition to those given by the bride’s father. Uxorilocal marriages were not unknown in Homeric Greece; in such cases, the bride’s

¹ 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.

² If she died childless, her dowry was to be given back to her natal family.

³ See, among others, Dixon (1986, 111), Saller (1991), and Thomas (1996).

parents did not provide a dowry but had the son-in-law share in the bequests. This was the case of Bellerophon, son of Glaucus, who married one of the daughters of Iobates, king of Lycia. The groom, who moved into his in-laws' household, did not receive the usual dowry, but was bequeathed half of the king's landed property (Leduc 1997, 262). Later, in the Greece of the city-states (VIII-IV centuries BCE), the brideprice disappeared and the dowry (*proix*) became the prominent marriage transfer (Sissa 1996). In classical Athens, sons shared equally in their parents' bequests.

In Rome, inheritance laws changed around the second century BCE. In early times, most women married *cum manu*: after marriage, they ceased being heirs of their natal households, and their dowries became part of their husbands' estates. At the marriage's dissolution, wives had the right to inherit an equal share of their husbands' property together with their children. In contrast, by the first century BCE, most marriages were *sine manu*: even after marriage, daughters were legally subject to the paternal authority and kept inheritance rights in their natal families. Although the husband could manage the dowry, at the marriage's dissolution he had to return it to his wife's family (or directly to his wife if she had been emancipated by her natal household).⁴ All children, regardless of gender, were entitled to receive equal bequests unless parents provided differently in their last wills. Unlike in some regions in late medieval Europe, in imperial Rome the provision of a dowry to a daughter did not automatically exclude her from inheriting a portion of his parents' estate.

Marriage gifts from husbands to wives (*donatio ante or propter nuptias*) became widespread in the late period of the empire in the third century CE (Gies and Gies 1987, 22).

The Hebrew Family from Antiquity to 1300 CE. Several episodes in the Bible indicate that polygamy was permitted, although it was probably limited to wealthy households, which could support multiple wives. The groom family paid a brideprice (*mohar*) to the bride household, who in turn partly gave it back to the bride herself. At the same time, bride parents provided their daughter with a dowry (*chiluhim*), which consisted of her share of the inheritance from her father (Alvarez-Pereyre and Heyman 1996, 175–77). Unlike the brideprice, whose value was customary, the size of the dowry varied according to the wealth of the bride's household. Papyri documenting the economic and social life of Jews living in Elephantine (Egypt) in the fifth century BCE indicate the relative size of dowries and brideprices: most brideprices were worth 5 and 10 shekels, while dowry values ranged from 12 to about 68 shekels (Yaron 1958; Porten 1968, 74, Table 1).

The biblical brideprice later disappeared. During the Mishnah and Talmudic period (200–600 CE), instead of paying a brideprice to the bride's parents, the groom provided a marriage gift directly to the bride (Epstein 1942, 85).

From the tenth through the thirteenth centuries, the wealth of documents from the Cairo Geniza enables one to learn a great deal about the economic and social life of the Jews in the Mediterranean.⁵ Virilocality continued to characterize the Jewish communities (Goitein

⁴Crook (1986), Saller (1991; 1994, 207), Thomas (1991), and Dixon (1992, 77–87).

⁵As Jews thought that writings on which the name of God might be found should not be destroyed, they deposited thousands of documents dealing with land sales, business contracts, loans, dowry contracts, last

1978, 38–41, 69). Sons, married or unmarried, often lived with their parents and worked in their families' business.

Jewish religious law established a minimum obligatory gift (*mohar*) from the groom to the bride; this gift amounted to 200 dinars or *zuz* (silver coins) for virgins and 100 dinars for widows and divorcees according to Palestinian practice, and 25 *zuz* and 12 $\frac{1}{2}$ *zuz* according to the Babylonian Talmud.⁶ The purpose of the obligatory gift was to prevent the husband from arbitrary divorce. In addition to the obligatory gift, the husband had to provide his wife with an additional marriage gift, usually in gold coins. At the time of engagement, the two families decided how much the groom had to give to the bride as first installment of this marriage gift ("early" gift), and how much he had to provide for her as second installment of the marriage gift ("late" gift), to be paid at the termination of the marriage (in the case of divorce or husband's death). In addition to these transfers from the groom, the bride also received the dowry from her natal family. A comparison of marriage gifts and dowries seems to indicate that, on average, the dowry the wife received from her natal family was larger than the marriage gift she obtained from her husband (Goitein 1978, Appendix; Friedman 1980, 285–86).

Western Europe, ca. 500–1200 CE. The pattern of marriage customs and intergenerational transfers in western Europe in the second half of the first millennium looks like a patchwork reflecting the influences of three heritages: the tradition of Roman law (described above), the customs of the Germanic tribes who conquered the lands once belonging to the empire, and the rules promoted by the Catholic Church, which enforced monogamy and stringent norms regarding incest to impede marriage among close relatives (Wemple 1985, 9).

In ancient times, among Germanic tribes grooms paid brideprices to the bride parents at marriage. In these societies, women, who did farmwork and housework, could not own land or other property, and were excluded from receiving property from their natal families.

The intermarrying of spouses of Germanic and Roman descent favored the merging of opposite heritages and brought strengthened economic rights to women living in the Visigothic reign in Spain, the Frankish kingdom in France and Germany, the Lombard reign in Italy, and the Anglo-Saxon kingdom in England. Yet, the pace at which the process of amalgamation of different traditions occurred, varied from place to place.

Between the sixth and the tenth century, women received wealth transfers from both their paternal families and their husbands (Fossier 1996, 45). At marriage, daughters moved into their in-laws' households and received dowries (under Roman law) or father's contributions (under Germanic law) from their natal families. Moreover, they could receive bequests. The type of property parents were permitted to assign to their daughters, though, differed

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.

⁶The Talmud indicates that 200 *zuz* were enough to support one person for a year. Also, the 200 *zuz* of the Palestinian practice corresponded to 8 $\frac{1}{3}$ gold dinars.

under the two systems. Under Germanic law, daughters could not inherit land from their natal families. Among the Franks, in cases of intestacy, land could be inherited by male children only, usually through equal bequests; the Salic code enacted by the Merovingian king Clovis in 511 established that daughters could receive equal bequests of money and movable property as their brothers, but could not inherit land (Gies and Gies 1987, 55). Later, in the eleventh century, new provisions authorized female inheritance of paternal land (Guichard and Cuvillier 1996, 353). The restriction regarding the inheritance of real property by daughters from their natal families never existed for those populations of Roman descent or living under Roman law: in this case, all children, regardless of gender were entitled to receive equal shares of the family movable and immovable property.

From their husbands, women gained access to property in various ways. The ancient brideprice of Germanic descent withered and was substituted with the marriage gift given by the groom to the bride herself. For example, the Burgundian code (early sixth century) established that one-third of the brideprice given to the bride household was to be bestowed upon the bride herself. Under Visigothic law, bride parents had the right to manage the brideprice, but upon their death it passed to their married daughter (Wemple 1985, 45). The Salic code in the sixth century granted the bride full ownership of the marriage settlement brought by the groom. The transformation of the brideprice into the marriage gift reached its completion in the seventh and eighth centuries.⁷ Like the *donatio ante/propter nuptias* that grooms assigned to their brides in the late Roman Empire, the early medieval marriage gift served the purpose of providing economic support to widows and divorced women. It consisted of two separate components: the *morgengabe*, which the groom offered to the bride the morning after the wedding in recognition of her virginity, and the bridegift or dowry, which the husband assigned to his wife during or at the termination of the marriage. Under Germanic law, women were gradually awarded the right to own and inherit real property through marriage settlements. The marriage gift from the husband to the wife, though defined in monetary value, could consist of the ownership or usufructuary rights over land.⁸

The balance between the dowry and the marriage gift gradually shifted. Around the tenth-eleventh centuries, the dowry regained prominence everywhere in western Europe. In continental Europe, by the thirteenth century, the dowry was the main marriage transfer (Violante 1977, 114).⁹ The unchanged nominal value of the marriage gift from the groom to the bride through the centuries made this transfer almost symbolic compared to the dowry she obtained from her natal family.¹⁰

⁷Only the Saxons kept the custom of giving the bride's father a substantial sum (Wemple 1985, 45).

⁸Again, the only exception occurred in the Saxon code, which established that the marriage gift could consist only of movable goods (Wemple 1985, 45).

⁹In the later middle ages and the Renaissance, the provision of dowries became a major concern for many families. In some Italian cities in the early Renaissance, town governments even created public funded debts in which parents could invest sums of money at their daughter's birth to provide for a dowry at the time of their daughters' marriage. In Florence, this was the purpose of the *Monte delle Doti* (dowry fund) established in 1425 (Kirshner and Molho 1978; and Molho 1994). In the sixteenth century, similar institutions appeared in Bologna and Naples (Delille 1982; Chabot and Fornasari 1997; and Carboni 1999).

¹⁰For example, in medieval Tuscany the marriage gift was fixed at half the value of the dowry up to a threshold of 50 lire. A bride bringing a dowry of, say, 26 lire, received 13 lire as marriage gift from the groom.

Also, other transfers from the husband to the wife withered. For example, in twelfth-century Genoa, the wife was entitled to receive an endowment in money or valuables from the husband at the time of the marriage, plus one third of her husband's estate at his death. This one-third share (*tercia*) was abolished in 1143, and the dowry she brought from her natal family became the major wealth transfer at marriage (Hughes 1978). The only exception remained England, where the dowry provided by the bride's parents was more than matched by the dower (usufructuary rights) that the husband promised to his wife once widow; common law set the value of the widow's portion at one third to one half of an estate (Gies and Gies 1987, 168).

The reappearance of the dowry in western Europe during the early Middle Ages often coincided with its association and almost identification with female inheritance. In some medieval cities and regions, statutes and codes explicitly stated that the dowry was a substitute for a daughter's claim on her paternal family's estate (Klapisch-Zuber 1985, 216; Fossier 1996, 418). A similar disinheritance of younger sons occurred in those places (such as England) with the custom of primogeniture: male children who joined the army or the clergy were given cash gifts, while the estate was left to the eldest son (Stone and Fawtier Stone 1984).

Thirteenth-Century Byzantium Dowry and post-marital residence appear also strictly interrelated in the lands belonging to the Byzantine empire. What is more intriguing is that dowries in substitution for claims over the natal family's estate were also provided to sons who married off and left their paternal households (Laiou 1998, 151–60). Regardless of gender, a distinction was made between *υπεξουσιοι* (children living in their parents' households) and *εξοπρικοι* (children married off with a dowry and who were not living in their parents' households).

Under Byzantine law, in the thirteenth century all children were entitled to equal bequests in case of intestacy; a testament could provide for different shares. Despite the rules established in the law, 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 *κληρονομοι* (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. An emperor even codified the disinheritance of married and dowered daughters by abrogating an ancient law, which enabled a married daughter to collate the dowry into the natal family's estate at the time of the parents' death and to seek equal inheritance. According to the emperor, this law "reintroduced by some people for their own profit, created major upheavals and the destruction of numerous and great houses" (Laiou 1998, 159).

Several examples of uxori-local marriages in peasant families (with grooms moving into the brides' households) are documented in censuses (Patlagean 1996, 476–80); in such cases, the groom received a dowry from his own family and became the heir of the bride's household where he moved into after marriage.

However, two brides—one with a dowry of 3000 lire and the other with a dowry of 100 lire—received an identical marriage gift of 50 lire.

Arab Islam, 650 CE to Modern Times. According to the norms established in the Quran, polygamy was permitted, with four being the maximum number of wives a man was legally entitled to marry and financially support. Until the fifteenth century, there is evidence that polygamy was practiced in the countryside, where husbands relied on their wives for both housework and farmwork. In contrast, city dwellers, unless very wealthy, did not practise polygamy because the cost of maintaining a wife in the city was much higher and her contribution to the family income much smaller (Bianquis 1996).

Virilocality seems to have been the norm. In the first nine centuries of Islam, transfers of wealth associated with marriage occurred in both directions. The groom offered a gift (brideprice) to the bride's family in compensation for the loss of a daughter, and he made a promise to provide the *mahr* (dower or marriage gift) to the wife during and/or at the termination of the marriage. The bride's family also provided a dowry for their daughter at the time of her marriage (Coulson 1978; Rapoport 2002).

Norms of inheritance established that goods forming a family's estate had to be divided into twenty-four *carats*, and each heir was entitled to a given number of shares, with daughters receiving half the share assigned to their brothers. When receiving a dowry, though, a daughter was usually excluded from the inheritance if her brothers were alive at the father's death (Bianquis 1996).¹¹

The coexistence of dowries (from the bride's parents to the bride) and marriage gifts (from the groom to the bride) is still a feature of many contemporary Muslim countries (Quale 1988, 242).

China. At the same time when in Europe the dowry was reemerging as the major wealth transfer at marriage, in Sung China (960–1279 CE) dowry payments grew in importance with respect to the marriage gifts conveyed by the groom's family (Ebrey 1991, 97–132). In the Sung period, hereditary aristocracy disappeared and a new social order was established based on the acquisition of academic titles and careers in the civil service (Cartier 1996, 511).

Unlike in the Spring and Autumn periods (770–453 BCE), when the elite practiced polygyny, brides received dowries, and grooms paid brideprices, monogamy became legally enforced in the early imperial period during the Han dynasty (206 BCE – 220 CE) (Thatcher 1991, 25–57). During the T'ang dynasty (617–907), aristocratic grooms paid substantial brideprices (in land, livestock, or silk) to bride families. A family instructions manual written around the sixth century emphasized that

In the present age, when marriages are arranged, some people sell their daughters for the betrothal gift or buy a wife by making a payment of silk. They compare

¹¹To both prevent excessive partition among heirs and to avoid confiscation by the ruler, though, the institution of *waqf* (property held in mortmain) became more and more widespread in Muslim lands in the Middle Ages. With a *waqf*, the owner “froze ownership of his estate without usufruct so that it could not be sold, given away, transmitted through inheritance or confiscated”. The revenues from the *waqf* were to be given to the owner's descendants and relatives (family *waqf*), or for charitable purposes, such as gifts to the poor, and to maintaining a bath house or a mosque (charitable *waqf*) (Bianquis 1996, 644).

the ancestry [of the two parties], calculate down to the smallest sum, demand much and offer little, exactly like bargaining in a market.¹²

In 657, the emperor Kao-tsung established a ceiling on brideprices and restricted the use of these gifts: from then on, the bride's family had to assign the goods forming the brideprice to the bride in addition to the dowry they provided.

Three centuries later, in Sung China the dowry from the bride's family became the major marriage payment across all social and economics groups. The link between dowries and post-marital residence is similar to the one observed in other civilizations. Daughters received dowries when they married and left their natal households; at the same time, in uxorilocal marriages the son-in-law who moved into the bride's household received a dowry from his natal family consisting of gold and silver, fields, and houses, and shared in the bride family's bequests (Ebrey 1991, 106). Uxorilocal marriages were often motivated by the need to have more labor available. For example, in families with no sons or sons too young who could not work yet, uxorilocal sons-in-law provided their in-laws with labor and took care of the estate.¹³

Dowries were considered a share of the family property but married daughters were not excluded from receiving bequests (Ebrey 1993, 107). Daughters (married and unmarried) also became the residual heirs when no brothers survived. When male siblings survived, they received equal bequests.

In contemporary China, there seems to be a divergence between urban and rural environments. In cities, both grooms and brides contribute to the constitution of a conjugal fund; their parents often help them with the expectation that they will receive old age support. In contrast, although both dowries and brideprices exist in rural communities, brideprices are much larger than dowries. One explanation for this asymmetry is that in villages, unlike cities, families try to cope with the increasing migration of their children to cities by paying brideprices in order to attract brides for their sons and ensure the availability of long-term family labor (Siu 1990; Das Gupta and Li).

Japan. The history of marriage payments and intergenerational transfers in Japan also indicates a close link between post-marital residence and the direction of wealth transfers.

In the antiquity and Middle Ages, uxorilocal residence (*mukoirikon*) was very common: the husband lived with the wife's parents during an initial period until at least the birth of the first child (Beillevaire 1996, 533). Children of either sex were entitled to receive bequests, although the share of landed property bequeathed to daughters was usually smaller than that assigned to sons (Beillevaire 1996, 533).

By the end of the Kamakura period (1185–1333) and especially from the fifteenth century on, post-marital residence became predominantly virilocal. At the same time and until during the entire Edo period (1600–1867), male primogeniture became legally enforced. Younger

¹²Quote taken from Ebrey (1991, 98). Silk was commonly used as currency at that time.

¹³A nice case cited in Ebrey (1993, 237) is the one of a Chinese man with a three-year old son, who left 30 percent of the estate to his son and 70 percent to his uxorilocal son-in-law who managed, and worked on, the estate.

children and daughters were excluded from inheriting shares of the family estate. Married daughters were entitled to receive trousseaux. Younger sons had two options: either they kept living in their eldest brother's houses as bachelors (in this case, their eldest brother had to provide for their maintenance), or they could become the principal heirs in other households by being adopted. Adoption became increasingly popular in Japan: by adopting a son-in-law (*yōshi*) and making him the universal heir, parents with no sons ensured the continuation of their lineages (Beillevaire 1996, 542–50).

Even in recent times, in uxori-local marriages where the groom moves into his bride's household, he brings his contribution, which closely resembles a dowry, and from then on he is no longer entitled to share in the bequests of his natal family (Quale 1988, 247).

India and Pakistan. The historical origin of the dowry system in India has been traced to the Hindu marriage among high castes in North India (Srinivas 1984; and Lardinois 1996a, 566). Until the end of the medieval period, *Brāhma* marriage practiced by high castes involved the giving of a daughter together with a dowry from the bride family to the groom family, whereas in the *Asura* marriage common among lower castes a brideprice was paid by the groom to marry the bride. During the colonial period, marriages with dowries became the only legally accepted form of marriage among all social groups and castes (Caplan 1993; Madan 1993; and Sheel 1999). In North India, virilocality was and still is the norm (Karve 1993, 60–62).

Brideprices are also common in South India among the people speaking the languages of the Dravidian family. The Dravidian kinship region is also characterized by an incidence of cross-cousin marriages varying anywhere from 10 to 54 percent (Dumont 1993; and Trautmann 1993a, 1993b). In cross-cousin marriages, a man marries his mother's brother's daughter, or his father's sister's daughter, or his elder sister's daughter. Thus, exchange of daughters and marriage among close kin is the preferred pattern in South and central India among Dravidian cultures whereas it is strongly opposed in the Hindu marriage in North India. Notice that among the Dravidians practicing cross-cousin marriages, virilocality is not such a predominant feature (Karve 1993, 62–67).

In 1956, a law established that Hindu women were entitled to an equal share with their brothers in their parents' property. Also, in 1961, dowries were outlawed (Quale 1988, 257). Yet, despite being outlawed, dowries remain very popular in India. However, on this issue, it is very important to clarify a possible misunderstanding. The anti-dowry legislation concerns the dowry, not the *stridhana* (Caplan 1993, 361; Sharma 1993; and Menski 1998). The latter includes the goods, such as clothes and jewelry that the bride receives from her own natal family and over which she maintains ownership rights; the *stridhana* represents her pre-mortem inheritance from her natal family in consideration of the fact that she will not receive any bequests at her parents' death. From this point of view, the *stridhana* is the equivalent of what we called "dowry" in other civilizations. In contrast, in India the goods forming the "dowry" become the property of the groom and his family. The contemporary problems related to dowries in India has to do with the increasing size of the dowry, that is, of the goods that the groom family demands at the time of marriage; this is what the

anti-dowry legislation tried to curb, without success so far.

To sum up, when talking about dowries, one has to be very careful in comparing past societies and contemporary India because property rights over the goods provided by the bride's family are very different. In most past societies, the wife retained the ownership over her dowry; in India, the wife holds property rights over the *stridhana*, but not over the dowry.

Among Muslims in Pakistan, virilocality is the norm and it is customary for a married daughter who received a dowry from her parents not to inherit shares of her natal family's estate to which she would be legally entitled. In order to prevent the goods assigned as dowry to go to outsiders, cross-cousin marriages in which a man marries his father's brother's daughter are particularly encouraged (Donnan 1993, 311, 321).

Africa. A notable exception to the pattern of virilocality and dowries is represented by contemporary African societies 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.

3 A Model of Dowries

See published article.

4 Discussion

The predictions of the theory are now discussed with respect to the historical cases.

Virilocality and Dowries. See published article.

No Income Sharing in Dowry Contracts. To minimize distortional effects on sons' incentives to work hard with their family assets, dowry contracts should not contain any income sharing provision. We are able to document this feature of dowry contracts in three societies quite far apart from each other: ancient Athens, the Jews in the Mediterranean basin in the ninth–thirteenth centuries, and medieval and Renaissance Tuscany.

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 Lysias, Isaeus, 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).¹⁴ Table 4 indicates the composition 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 Florence, 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 furniture. 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 percent in the early fifteenth century. In each period, a negligible percentage of contracts contained income sharing clauses.

Table 6 reports even more detailed information on dowry contracts in the smaller Tuscan town of Cortona between 1415 and 1436; for most of these contracts, the bride's and groom's households have been matched in the 1427 Florentine *catasto*—a census and property survey of the Florentine domains.¹⁵

¹⁴We are very grateful to Yossef Rapoport for suggesting us to look into Goitein (1978) for data on Jewish marriage contracts from the Cairo Geniza.

¹⁵Marriage contracts written by notaries provided information on the size of the dowry, its composition, terms of payments, the names of the bride, the groom, and their respective fathers, and the place of residence. The deeds record marriages in the Tuscan town of Cortona and forty-four villages in its countryside between 1415 and 1436. At that time, Cortona was the sixth most populous town in the Florentine territories. We then matched these brides's and grooms' households recorded in the marriage contracts with the corresponding households in the Florentine *catasto* of 1427, which supplied information on the wealth, occupation, number of children, and percentage of sons living in the bride's and groom's households, and ages of the spouses (and their parents'). Out of 328 marriage contracts, 222 couples could be matched to their paternal households in the contemporary census.

[TABLE 6 HERE]

In Cortona only two out of 328 marriage contracts contained a clause involving a profit sharing arrangement.¹⁶ In one of the two contracts, the groom was entitled to the revenue from two land plots cultivated by the bride's family. 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, forthcoming). However, in the context of dowry contracts, income sharing agreements were rare.

The evidence from ancient Athens, the Jewish communities in the Mediterranean in the high Middle Ages, and medieval and Renaissance Tuscany supports 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 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.¹⁷

Exclusion of Daughters from Bequests. See published article.

Parental Valuation of Daughters and Sons in Dotal Societies. See published article.

¹⁶The two contracts, which allowed for a profit sharing arrangement, are in ASF, Notarile Antecosimiano 18908, unnumbered fol., and 18910, fol. 390r.

¹⁷Notice also that Rosenzweig and Stark do not analyze dowry contracts, as they explicitly recognize (p. 907, footnote 3). Thus, we do not know to what extent the Indian rural households surveyed provide/receive dowries. Moreover, in one of the three villages considered (Shirapur), the great majority of marriages are cross-cousin marriages. This is an important feature because it has been shown that in the Dravidian kinship region where cross-cousin marriages are very common, dowries are not the norm.

5 Wither Dowries?

See published article.

6 Appendix

Proofs

In the final stage of the game, given final gross wealth of the son, $y_s = (1 + e_s)x$, and final gross wealth of the daughter, $y_d = (1 + e_d)(1 - x)$, the parents will choose the optimal share of bequest $b^*(e_s, e_d, x)$ such that:

$$\begin{aligned} U'(b^*(1 + e_s)x) &= U'((1 - b^*)(1 + e_s)x + (1 + e_d)(1 - x)) \\ \implies b^*(1 + e_s)x &= \frac{(1 - b^*)(1 + e_s)x + (1 + e_d)(1 - x)}{2} \quad \text{if } y_s > y_d \end{aligned} \quad (1)$$

$$b^* = 1 \text{ if } y_s \leq y_d$$

Given effort levels, x and $b^*(e_s, e_d, x)$ as summarized by (1), the children's payoffs are described by the following normal form representations:

For $x \leq \frac{1}{3}$,

		<i>Son's</i>	<i>payoffs</i>
		$e_s = 1$	$e_s = 0$
$D.'s$	$e_d = 1$	$U(2(1 - x)) - 2\beta(1 - x), U(2x) - 2x$	$U(2(1 - x)) - 2\beta(1 - x), U(x) - x$
<i>payoff</i>	$e_d = 0$	$U(1 - x) - \beta(1 - x), U(2x) - 2x$	$U(1 - x) - \beta(1 - x), U(x) - x$

For $\frac{1}{3} < x \leq \frac{1}{2}$,

		<i>Son's</i>	<i>payoffs</i>
		$e_s = 1$	$e_s = 0$
$D.'s$	$e_d = 1$	$U(2(1 - x)) - 2\beta(1 - x), U(2x) - 2x$	$U(2(1 - x)) - 2\beta(1 - x), U(x) - x$
<i>payoff</i>	$e_d = 0$	$U(\frac{1+x}{2}) - \beta(1 - x), U(\frac{1+x}{2}) - 2x$	$U(1 - x) - \beta(1 - x), U(x) - x$

For $\frac{1}{2} < x \leq \frac{2}{3}$,

		<i>Son's</i>	<i>payoffs</i>
		$e_s = 1$	$e_s = 0$
$D.'s$	$e_d = 1$	$U(1) - 2\beta(1 - x), U(1) - 2x$	$U(2(1 - x)) - 2\beta(1 - x), U(x) - x$
<i>payoff</i>	$e_d = 0$	$U(\frac{1+x}{2}) - \beta(1 - x), U(\frac{1+x}{2}) - 2x$	$U(\frac{1}{2}) - \beta(1 - x), U(\frac{1}{2}) - x$

For $\frac{2}{3} < x \leq 1$,

		<i>Son's</i>	<i>payoffs</i>
		$e_s = 1$	$e_s = 0$
<i>D.'s</i>	$e_d = 1$	$U(1) - 2\beta(1-x), U(1) - 2x$	$U(\frac{2-x}{2}) - 2\beta(1-x), U(\frac{2-x}{2}) - x$
<i>payoff</i>	$e_d = 0$	$U(\frac{1+x}{2}) - \beta(1-x), U(\frac{1+x}{2}) - 2x$	$U(\frac{1}{2}) - \beta(1-x), U(\frac{1}{2}) - x$

For each range of x , we solve for the subgame perfect Nash equilibrium in effort levels and the optimal choice of x in a series of lemmas.

Lemma 1 For $x \leq \frac{1}{3}$, the equilibrium effort levels for the son and daughter are 1 and 1 respectively. The equilibrium payoff for the parents is:

$$U(2x) - 2x + U(2(1-x)) - 2\beta(1-x)$$

Proof: Due to assumption A(i), it is a dominant strategy for the son to work hard. Likewise for the daughter. ■

Corollary 2 For $x \leq \frac{1}{3}$, maximum parental utility, obtained at $x = \frac{1}{3}$, is:

$$r_1 = U(\frac{2}{3}) - \frac{2}{3} + U(\frac{4}{3}) - \frac{4\beta}{3}$$

Lemma 3 Consider x which satisfies $\frac{1}{3} < x \leq \frac{1}{2}$, let $x^\#$ solves $U(x^\#) - x^\# - (U(\frac{1+x^\#}{2}) - 2x^\#) = 0$. For $x < x^\#$, let $k(x) = U(2(1-x)) - 2\beta(1-x) - (U(\frac{1+x}{2}) - \beta(1-x))$. If $k(x^\#) < 0$, let $k(\hat{x}) = 0$. For $x^\# > x > \hat{x}$, the daughter will shirk and the son will work in equilibrium. In all other circumstances, both children will choose equilibrium effort levels of 1.

If the daughter works, the son will optimally choose to work. If the daughter shirks, the son will shirk if $x > x^\#$. Otherwise he will work. Anticipating the son's best response, the daughter will choose to work if $x > x^\#$. If $x < x^\#$, she will work if $k(x^\#) > 0$. If $k(x^\#) < 0$, she will choose to work if $x < \hat{x}$ and not otherwise.

Corollary 4 For $\frac{1}{3} < x \leq \frac{1}{2}$, maximum parental utility, obtained at $x = \frac{1}{2}$, is:

$$r_2 = U(1) - 1 + U(1) - \beta$$

Lemma 5 Consider x which satisfies $\frac{1}{2} < x \leq \frac{2}{3}$, let \bar{x} solves $U(1) - 2\bar{x} - (U(\bar{x}) - \bar{x}) = 0$. Let $\tilde{x} = \min(\bar{x}, \frac{2}{3})$. For $x < \tilde{x}$, the equilibrium effort levels for the son and daughter are both equal to 1. Otherwise the equilibrium effort levels are both equal to 0.

Proof: Let $x < \tilde{x}$. Then if the daughter exerts effort, the son will also exert effort. If the daughter shirks, the son will also choose to shirk. Given the best responses of the son, the daughter will choose to exert effort. If $x > \tilde{x}$, it is a dominant strategy for the son to shirk. Then it is also optimal for the daughter to shirk.

Corollary 6 For $\frac{1}{2} < x \leq \frac{2}{3}$, maximum parental utility is:

$$r_3 = U(1) - 2\tilde{x} + U(1) - 2\beta(1 - \tilde{x})$$

Lemma 7 For $\frac{2}{3} < x \leq 1$, the equilibrium effort levels for the son and daughter are both equal to 0. The equilibrium payoff for the parents is:

$$U(\frac{1}{2}) - x + U(\frac{1}{2}) - \beta(1 - x)$$

Proof: For $\frac{2}{3} < x \leq 1$, it is a dominant strategy for the daughter to shirk. Given that the daughter has shirked, it is also optimal for the son to shirk. ■

Corollary 8 For $\frac{2}{3} < x \leq 1$, maximum parental utility, obtained at $x = 1$, is:

$$r_4 = U(\frac{1}{2}) - 1 + U(\frac{1}{2})$$

$r_2 > r_1$. $r_2 > r_4$. Finally, $r_3 > r_2$ and we get Proposition 2. ■

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
<i>N</i>	110	21
	Extent of polygyny	
Societies with polygyny	79.4	
Societies with occasional/limited polygyny	16.8	
Societies with monogamy	3.8	
<i>N</i>	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, 4-6th Centuries BCE

Orators mentioning dowry contracts	Number of daughters	Goods forming the dowry ^a
Lysias	2	40 minas ?
	2	30 minas 30 minas
	1	1 talentum
Isaeus	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 (1997), 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 CE: See Table 1 in published article.

TABLE 5: Dowry Contracts in Florence, 1242–1436: See Table 2 in published article.

Table 6: Dowry Contracts in the Tuscan Town of Cortona, 1415–1436

<i>Contract characteristics</i>	<i>All contracts</i>	<i>Matched contracts</i>	
	Percentage	Shares ^d	Percentage
Payment(movables)	16.4	0.03	13.0
Payment (cash)	86.2	0.75	91.8
Payment (houses; shops)	12.5	0.01	7.2
Payment (land holdings)	45.7	0.21	40.5
Deferred payments	53.0	—	58.5
Contingent payments ^a	21.3	—	23.8
Profit sharing	0.6	—	0.9
Other terms ^b	8.8	—	4.5
Average dowry ^c	114.8		124.3
Median dowry ^c	64		70
<i>N</i>	328		222

Sources: State Archives of Florence, Catasto and Notarile Antecosimiano.

^aThe majority of contingent payments were contingent upon the groom’s request. That is, the contract explicitly provided that a portion of the dowry was to be paid “when the groom will ask for it.”

^b Some marriage contracts specified other terms: in some instances, a portion of the dowry had to be paid by someone else than the bride’s parents (a charity, a relative, etc.).

^c Figures are in gold florins. The values for all contracts (first column) are calculated for the 292 contracts that provided the value of the dowry.

^d $\text{Average}\left(\frac{\text{value of type of payment}}{\text{value of total dowry}}\right)$.

References

- [1] Akerberg, Daniel A., and Maristella Botticini. “Endogenous Matching and the Empirical Determinants of Contract Form.” *Journal of Political Economy* (Forthcoming).
- [2] Alvarez-Pereyre, Frank, and Florence Heymann. “The Desire for Transcendence: the Hebrew Family Model and Jewish Family Practices.” In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 155–93. Cambridge, MA: The Belknap Press of Harvard University Press, 1996.
- [3] Anderson, Siwan. “Why Dowries Declined with Modernization in Europe but Are Rising in India.” *Journal of Political Economy* (forthcoming).
- [4] Becker, Gary S. *A Treatise on the Family*. Cambridge, Mass.: Harvard University Press, 1981.
- [5] Beillevalaire, Patrick. “Japan: a Household Society.” In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 523–65. Cambridge, MA: The Belknap Press of Harvard University Press, 1996.
- [6] Bellomo, Manlio. *Ricerche sui rapporti patrimoniali tra coniugi*. Milan: Giuffrè, 1961.
- [7] Bernheim, B. Douglas, Andrei Shleifer, and Lawrence Summers. “The Strategic Bequest Motive.” *Journal of Political Economy* 93, no. 6 (1985): 1045–76.
- [8] Bianquis, Thierry. “The Family in Arab Islam.” In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 601–47. Cambridge, MA: The Belknap Press of Harvard University Press, 1996.
- [9] Boserup, Ester. *Woman’s Role in Economic Development*. New York: St. Martin’s Press, 1970.
- [10] Botticini, Maristella. “A Loveless Economy? Intergenerational Altruism and the Marriage Market in a Tuscan Town.” *Journal of Economic History* 59 (March 1999): 104–21.
- [11] Caldwell, J. C., P. H. Reddy, and Pat Caldwell. “The Causes of Marriage Change in South India.” *Population Studies* 37 (1983): 343–61.
- [12] Caplan, Lionel. “Bridegroom Price in Urban India: Caste, Class and ‘Dowry Evil’ among Christians in Madras.” In *Family, Kinship and Marriage in India*, edited by Patricia Uberoi, 357–81. Delhi: Oxford University Press, 1993.

- [13] Carboni, Mauro. *Le doti della "povertà." Famiglia, risparmio, previdenza: il Monte del Matrimonio di Bologna (1583-1796)*. Bologna: Il Mulino, 1999.
- [14] Carroll, Lucy. "Daughter's Right of Inheritance in India: A Perspective on the Problem of Dowry." *Modern Asian Studies* 25 (1991): 791-809.
- [15] Cartier, Michel. "China: the Family as a Relay of Government." In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 491-522. Cambridge, MA: The Belknap Press of Harvard University Press, 1996.
- [16] Chabot, Isabelle, and Massimo Fornasari. *L'economia della carità. Le doti del Monte di Pietà di Bologna (secoli XVI-XX)*. Bologna: Il Mulino, 1997.
- [17] Chen, Chung-min. "Dowry and Inheritance." In *The Chinese Family and its Ritual Behavior*, edited by J.-c. Hsieh and Y.-c. Chuang. Taipei: The Institute of Ethnology, Academia Sinica, 1985.
- [18] Chiappori, Pierre-Andr , Bernard Fortin, and Guy Lacroix. "Marriage Market, Divorce Legislation and Household Labor Supply." *Journal of Political Economy* 110, No. 1 (2002): 37-72.
- [19] Chojnacki, Stanley. "Dowries and Kinsmen in Early Renaissance Venice." *Journal of Interdisciplinary History* 4 (1975): 571-600.
- [20] ———. "Marriage Legislation and Patrician Society in Fifteenth-Century Venice." In *Law, Custom, and the Social Fabric in Medieval Europe: Essays in Honor of Bryce Lyon*, edited by Bernard S. Bachrach and David Nicholas. Kalamazoo, Mich.: Medieval Institute Publications, Western Michigan University, 1990.
- [21] Cipolla, Carlo M. *The Monetary Policy of Fourteenth-Century Florence*. Berkeley: University of California Press, 1982.
- [22] Cohn, Samuel K. *Women in the Streets: Essays on Sex and Power in Renaissance Italy*. Baltimore: The Johns Hopkins University Press, 1996.
- [23] Coulson, Noel J. *A History of Islamic Law*. Edinburgh: University Press, 1978.
- [24] Crook, J. A. "Women in Roman Succession." In *The Family in Ancient Rome. New Perspectives*, edited by Beryl Rawson, 58-82. London and Sydney: Croom Helm, 1986.
- [25] Das Gupta, Monica, and Shuzhuo Li. "Gender Bias in China, South Korea, and India, 1920-1990: Effects of War, Famine, and Fertility Decline." *Development and Change* 30 (1999): 619-52.
- [26] Ditz, Toby. *Property and Kinship: Inheritance in Early Connecticut 1750-1820*. Ithaca: Cornell University Press, 1986.

- [27] Dixon, Susan. "Family Finances: Terentia and Tullia." In *The Family in Ancient Rome. New Perspectives*, edited by Beryl Rawson, 93–120. London and Sydney: Croom Helm, 1986.
- [28] ———. *The Roman Family*. Baltimore: The Johns Hopkins University Press, 1992.
- [29] Donnan, Hastings. "Marriage Preferences Among the Dhund of Northern Pakistan." In *Family, Kinship and Marriage in India*, edited by Patricia Uberoi, 307–29. Delhi: Oxford University Press, 1993.
- [30] Dumont, Louis. "North India in Relation to South India." In *Family, Kinship and Marriage in India*, edited by Patricia Uberoi, 91–111. Delhi: Oxford University Press, 1993.
- [31] Ebrey, Patricia Buckley. "Shifts in Marriage Finance from the Sixth to the Thirteenth Century." In *Marriage and Inequality in Chinese Society*, edited by Patricia Buckley Ebrey and Rubie S. Watson. Berkeley: University of California Press, 1991.
- [32] ———. *The Inner Quarters. Marriage and the Lives of Chinese Women in the Sung Period*. Berkeley: University of California Press, 1993.
- [33] Edlund, Lena. "Dowry Inflation: A Comment." *Journal of Political Economy* 108, no. 6 (2000): 1327–33.
- [34] ———. "Dear Son - Expensive Daughter: Why Do Scarce Women Pay to Marry?" Columbia University, Department of Economics, Working Paper, 2001.
- [35] Epstein, Louis M. *Marriage Laws in the Bible and the Talmud*. Cambridge, MA: Harvard University Press, 1942.
- [36] Fossier, Robert. "The Feudal Era (Eleventh–Thirteenth Century)." In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 407–29. Cambridge, MA: The Belknap Press of Harvard University Press, 1996.
- [37] Friedman, Mordechai Akiva. *Jewish Marriage in Palestine: a Cairo Geniza Study*. Vol. I. Tel Aviv: Chaim Rosenberg School of Jewish Studies, 1980.
- [38] Gaulin, Steven J. C., and James Boster. "Dowry as Female Competition." *American Anthropologist* 92 (1990): 994–1005.
- [39] Gies, Frances, and Joseph Gies. *Marriage and the Family in the Middle Ages*. New York: Harper & Row Publishers, 1987.
- [40] Glassner, Jean-Jacques. "From Sumer to Babylon: Families as Landowners and Families as Rulers." In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 92–127. Cambridge, MA: The Belknap Press of Harvard University Press, 1996.

- [41] Goitein, Schlomo D. *A Mediterranean Society. The Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza. Vol. III: The Family*. Los Angeles: University of California Press, 1978.
- [42] ———. *A Mediterranean Society. The Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza*. 5 Vols. Los Angeles: University of California Press, 1967–1988.
- [43] Goldthwaite, Richard A., and Giulio Mandich. *Studi sulla moneta fiorentina: (secoli XIII-XVI)*. Florence: L.S. Olschki, 1994.
- [44] Goody, Jack. “Bridewealth and Dowry in Africa and Eurasia.” In *Bridewealth and Dowry*, edited by Jack Goody and Stanley J. Tambiah. Cambridge: Cambridge University Press, 1973.
- [45] ———. *Production and Reproduction*. Cambridge: Cambridge University Press, 1976.
- [46] ———. *The Oriental, the Ancient and the Primitive: Systems of Marriage and the Family in the Pre-Industrial Societies of Eurasia*. Cambridge: Cambridge University Press, 1990.
- [47] Gregory, Heather. “Daughters, Dowries, and the Family in Fifteenth-Century Florence.” *Rinascimento* 2nd. ser. 27 (1987): 215–37.
- [48] Grossbard-Shectman, Shoshana. *On the Economics of Marriage: A Theory of Marriage, Labor and Divorce*. Boulder: Westview Press, 1993.
- [49] Guichard, Pierre, and Jean-Pierre Cuvillier. “Barbarian Europe.” In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 318–78. Cambridge, MA: The Belknap Press of Harvard University Press, 1996.
- [50] Guner, Nezih. “An Economic Analysis of Family Structure: Inheritance Rules and Marriage Systems.” Department of Economics, University of Rochester, Manuscript, 1998.
- [51] Hamilton, Gillian. “Property Rights and Transaction Costs in Marriage: Evidence from Prenuptial Contracts.” *Journal of Economic History* 59, no. 1 (March 1999): 68–103.
- [52] Hamilton, Gillian, and Aloysius Siow. “Class, Gender, and Marriage.” Department of Economics, University of Toronto, Manuscript, 2000.
- [53] Harrell, Stevan, and Sara A. Dickey. “Dowry Systems in Complex Societies.” *Ethnology* 24 (1985): 105–20.
- [54] Hartung, John. “Polygyny and the Inheritance of Wealth.” *Current Anthropology* 23 (1982):1–12.

- [55] Herlihy, David. "The Medieval Marriage Market." *Medieval and Renaissance Studies* 6 (1976): 1–27.
- [56] Herlihy, David, and Christiane Klapisch-Zuber. *Les Toscans et leurs familles: Un etude du Castasto florentin de 1427*. Paris: Presses de la Fondation Nationale de Sciences Politiques, 1978. Also published in English: *The Tuscans and Their Families: A Study of the Florentine Catasto of 1427*. New Haven: Yale University Press, 1985.
- [57] Hughes, Diane Owen. "From Brideprice to Dowry in Mediterranean Europe." *Journal of Family History* 3 (1978): 262–96.
- [58] Jones, C. H. W. *Babylonian and Assyrian Law, Contracts, and Letters*. Edinburgh: T. & T. Clark, 1904.
- [59] Karve, Irawati. "The Kinship Map of India." In *Family, Kinship and Marriage in India*, edited by Patricia Uberoi, 50–73. Delhi: Oxford University Press, 1993.
- [60] Kirshner, Julius. "Wives' Claims Against Insolvent Husbands in Late Medieval Italy." In *Women of the Medieval World: Essays in Honor of John H. Mundy*, edited by Julius Kirshner and Suzanne F. Wemple. Oxford and New York: Basil Blackwell, 1985.
- [61] ———. "Materials for a Gilded Cage: Non-Dotal Assets in Florence (1300–1500)." In *The Family in Italy from Antiquity to the Present*, edited by Richard P. Saller and David I. Kertzer. New Haven and London: Yale University Press, 1991.
- [62] Kirschner, Julius, and Anthony Molho. "The Dowry Fund and the Marriage Market in Early Quattrocento Florence." *Journal of Modern History* 50 (1978): 403–38.
- [63] Klapisch-Zuber, Christiane. *Women, Family, and Ritual in Renaissance Italy*. Chicago: University of Chicago Press, 1985.
- [64] Korth, Eugene, and Della Flusche. "Dowry and Inheritance in Colonial Spanish America: Peninsular Law and Chilean Practice." *The Americas* 43 (1987): 395–410.
- [65] Kuehn, Thomas. *Law, Family, and Women: Toward a Legal Anthropology of Renaissance Italy*. Chicago: University of Chicago Press, 1991.
- [66] La Ronciere, Charles-M. de. *Prix et salaires a Florence au XIVE siecle, 1280-1380*. Rome: Ecole française de Rome, 1982.
- [67] Laiou, Angeliki E. "Marriage Prohibitions, Marriage Strategies and the Dowry in Thirteenth-Century Byzantium." In *La transmission du patrimoine. Byzance et l'aire méditerranéenne*, 129–60. Travaux et Mémoires du Centre de Recherche d'Histoire et Civilisation de Byzance, Collège de France, Monographies 11. Paris: De Boccard, 1998.
- [68] Lam, David. "Marriage Markets and Assortative Mating with Household Public Goods: Theoretical Results and Empirical Implications." *Journal of Human Resources* 23, no. 3 (1988): 462–87.

- [69] Lardinois, Roland. "The World Order and the Family Institution in India." In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 566–600. Cambridge, MA: The Belknap Press of Harvard University Press, 1996a.
- [70] ———. "India: the Family, the State and Women." In *A History of the Family. Volume II. The Impact of Modernity*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 268–300. Cambridge, MA: The Belknap Press of Harvard University Press, 1996b.
- [71] Leduc, Claudine. "Come darla in matrimonio? La sposa nel mondo greco, secoli IX-IV BCE." In *Storia delle donne. L'antichità*, edited by Pauline Schmitt Pantel, 246–314. Bari: Economica Laterza, 1997.
- [72] Patrick, Legros and Newman, Andrew F. "Beauty is a Beast, Frog is a Prince: Assortative Matching with Nontransferabilities." Working paper, ECARES, Université Libre de Bruxelles and University College London, November 2002.
- [73] Lundberg, Shelly, Robert Pollak, and Terence Wales. "Do Husbands and Wives Pool their Resources? Evidence from the U.K. Child Care Benefit." *Journal of Human Resources* 32, no. 3 (1997): 463–80.
- [74] Madan, T. N. "The Structural Implications of Marriage Alliance in North India: Wife-givers and Wife-takers among the Pandits in Kashmir." In *Family, Kinship and Marriage in India*, edited by Patricia Uberoi, 287–306. Delhi: Oxford University Press, 1993.
- [75] Malanima, Paolo. "Risorse, popolazioni, redditi: 1300-1861." In *Storia economica d'Italia*, edited by Pierluigi Ciocca and Gianni Toniolo, Vol. 1, 43–124. Roma-Bari: Laterza, 1999.
- [76] ———. "L'economia toscana dalla peste nera alla fine del Seicento." In *Storia della Toscana*, edited by Elena Fasano Guarini, Giuseppe Petralia, and Paolo Pezzino, 51–70. Bari-Roma: Laterza, 2001.
- [77] Menski, Werner. "Dowry: A Survey of the Issues and the literature." In *South Asians and the Dowry Problem*, edited by Werner Menski, 37–60. New Delhi: Vistaar Publications, 1998.
- [78] Mills, Edwin S., and Charles M. Becker. *Studies in Indian Urban Development*. New York: Oxford University Press (for World Bank), 1986.
- [79] Mohan, Rakesh. "Urbanization in India's Future." *Population and Development Review* 11, no. 4 (1985): 619–45.
- [80] Molho, Anthony. *Marriage Alliance in Late Medieval Florence*. Cambridge, Mass.: Harvard University Press, 1994.

- [81] Murdoch, George P. *Ethnographic Atlas*. Pittsburgh: University of Pittsburgh Press, 1967.
- [82] Nazzari, Muriel. *Disappearance of the Dowry: Women, Families, and Social Change in Sao Paulo, Brazil (1600-1900)*. Stanford, California: Stanford University Press, 1991.
- [83] Patlagean, Èvelyne. "Families and Kinship in Byzantium." In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 467–88. Cambridge, MA: The Belknap Press of Harvard University Press, 1996.
- [84] Peters, Michael, and Aloysius Siow. "Competing Pre-marital Investments." *Journal of Political Economy*, forthcoming.
- [85] Porten, Bezalel. *Archives from Elephantine. The Life of an Ancient Jewish Military Colony*. Berkeley and Los Angeles: University of California Press, 1968.
- [86] Quale, Robina G. *A History of Marriage Systems*. New York: Greenwood Press, 1988.
- [87] Queller, Donald E., and Thomas F. Madden. "Father of the Bride: Fathers, Daughters, and Dowries in Late Medieval and Early Renaissance Venice." *Renaissance Quarterly* 46, no. 4 (1993): 685–711.
- [88] Rao, Vijayendra. "The Rising Price of Husbands: A Hedonic Analysis of Dowry Increases in Rural India." *Journal of Political Economy* 101 (1993): 666–77.
- [89] ———. "The Marriage Squeeze Interpretation of Dowry Inflation: Response." *Journal of Political Economy* 108, no. 6 (December 2000): 1334–35.
- [90] Rapoport, Yossef. "Marriage and Divorce in the Muslim Near East, 1250–1517." Ph.D. Dissertation, Princeton University, 2002.
- [91] Riemer, Eleanor S. "Women, Dowries, and Capital Investment in Thirteenth-Century Siena." In *The Marriage Bargain*, edited by Marion Kaplan, 59–80. New York: Haworth Press, 1985.
- [92] Rosenzweig, Mark R., and Kenneth I. Wolpin. "Specific Experience, Household Structure, and Intergenerational Transfers: Farm Family Land and Labor Arrangements in Developing Countries." *Quarterly Journal of Economics* 100 (1985): 961–87.
- [93] Rosenzweig, Mark R., and Oded Stark. "Consumption Smoothing, Migration, and Marriage: Evidence from Rural India." *The Journal of Political Economy* 97, no. 4. (1989): 905–26.
- [94] Saller, Richard P. "The Roman Family." In *The Family in Italy from Antiquity to the Present*, edited by David I. Kertzer, and Richard P. Saller. New Haven: Yale University Press, 1991.

- [95] ———. *Patriarchy, Property, and Death in the Roman Family*. Cambridge: Cambridge University Press, 1994.
- [96] Schlegel, Alice, and Rohn Eloul. “Marriage Transactions: Labor, Property, Status.” *American Anthropologist* 90 (1988): 291–309.
- [97] Shammas, Carole. *A History of American Household Government*. University Press of Virginia (forthcoming).
- [98] Shammas, Carole, Marylynn Salmon, and Michel Dahlin. *Inheritance in America: Colonial Times to the Present*. New Brunswick, N.J.: Rutgers University Press, 1987.
- [99] Sharma, Ursula. “Dowry in North India: its Consequences for Women.” In *Family, Kinship and Marriage in India*, edited by Patricia Uberoi, 341–56. Delhi: Oxford University Press, 1993.
- [100] Sheel, Ranjana. *The Political Economy of Dowry. Institutionalization and Expansion in North India*. New Delhi: Manohar Publishers, 1999.
- [101] Siow, Aloysius, and Xiaodong Zhu. “Differential Fecundity and Gender Biased Parental Investments.” Department of Economics, University of Toronto, Manuscript, 1998. <http://www.chass.utoronto.ca/ecipa/wpa.html>
- [102] Sissa, Giulia. “The Family in Ancient Athens (Fifth-Fourth Century BCE).” In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 194–227. Cambridge, MA: The Belknap Press of Harvard University Press, 1996.
- [103] Siu, Helen F. “The Revival of Brideprice and Dowry in Rural Guangdong.” In *Family Strategies in Post-Mao China*, edited by Deborah Davis and Stevan Harrel, 1–51. 1990.
- [104] Spufford, Peter. *Money and its Use in Medieval Europe*. Cambridge: Cambridge University Press, 1988.
- [105] Srinivas, Mysore Narasimhachar. *Some Reflections on Dowry*, New Delhi: Oxford University Press, 1984.
- [106] Stone, Lawrence, and J. C. Fawtier Stone. *An Open Elite? England 1540–1880*. Oxford: Clarendon Press, 1984.
- [107] Tambiah, Stanley J. “Dowry and Bridewealth, and the Property Rights of Women in South Asia.” In Jack Goody and Stanley J. Tambiah, *Bridewealth and Dowry*. Cambridge: Cambridge University Press, 1973, pp. 59–169.
- [108] Tertilt, Michèle. “The Economics of Brideprices and Dowries.” University of Minnesota, Working Paper, 2001.

- [109] Thatcher, Melvin. "Marriage of the Ruling Elite in the Spring and Autumn Period." In *Marriage and Inequality in Chinese Society*, edited by Patricia Buckley Ebrey and Rubie S. Watson. Berkeley: University of California Press, 1991.
- [110] Thomas, Yan. "Fathers as Citizens of Rome, Rome as a City of Fathers (Second Century BCE–Second Century CE). In *A History of the Family. Volume I. Distant Worlds, Ancient Worlds*, edited by André Burguière, Christiane Klapisch-Zuber, Martine Segalen, Françoise Zonabend, 228–69. Cambridge, MA: The Belknap Press of Harvard University Press, 1996.
- [111] ———. "La divisione dei sessi nel diritto romano." In *Storia delle donne. L'antichità*, edited by Pauline Schmitt Pantel, 103–76. Bari: Editrice Laterza, 1991.
- [112] Trautmann, Thomas. "The Study of Dravidian Kinship." In *Family, Kinship and Marriage in India*, edited by Patricia Uberoi, 74–90. Delhi: Oxford University Press, 1993a.
- [113] ———. "Marriage Rules and Patterns of Marriage in the Dravidian Kinship Region." In *Family, Kinship and Marriage in India*, edited by Patricia Uberoi, 273–86. Delhi: Oxford University Press, 1993b.
- [114] Vickers, Daniel. *Farmers and Fishermen: Two Centuries of Work in Essex Co. Massachusetts 1630-1850*. Chapel Hill: University of North Carolina Press, 1994.
- [115] Violante, Cinzio. "Quelques caractéristiques des structures familiales en Lombardie, Émilie et Toscane aux XI^e et XII^e siècles." In *Famille et Parenté dans l'Occident Médiéval*, edited by Georges Duby and Jacques Le Goff, 87–148. Rome: École Française de Rome, 1977.
- [116] Weiss, Yoram. "The Formation and Dissolution of Families: Why Marry? Who Marries Whom? And What Happens Upon Divorce." In *Handbook of Population and Family Economics*, edited by M. Rosenzweig and O. Stark, Vol. 1A, 81–124. Amsterdam: Elsevier Science (1997).
- [117] Wemple, Suzanne Fonay. *Women in Frankish Society. Marriage and the Cloister, 500 to 900*. Philadelphia: University of Pennsylvania Press, 1985.
- [118] Yaron, Reuven. "Aramaic Marriage Contracts From Elephantine." *Journal of Semitic Studies* 3, No. 1 (1958): 1–39.
- [119] Zhang, Junsen, and William Chan. "Dowry and Wife's Welfare: A Theoretical and Empirical Analysis." *Journal of Political Economy* 107, no. 4 (1999): 786–808.