



Published in final edited form as:

J Marriage Fam. 2012 February ; 74(1): 116–131. doi:10.1111/j.1741-3737.2011.00881.x.

Gender and Material Transfers between Older Parents and Children in Ismailia, Egypt

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Abstract

In Egypt, kin relations have been governed by a patriarchal contract, which defines expectations for intergenerational support along gendered lines. Social changes may be disrupting these customs and bringing attention to the ways gender may influence intergenerational support in rapidly changing contexts. Using data from 4,465 parent–child dyads in Ismailia, Egypt, we examined whether intergenerational material transfers favored women over men and whether gaps in needs and endowments accounted for gender differences in transfers. Fathers gave children money and goods more often than did mothers; mothers received material transfers from children more often than did fathers. Compared to sons, daughters made transfers to parents less often and received transfers from parents more often. We found residual advantages to mothers and daughters, even adjusting for differential needs and endowments. Findings corroborate persistent norms of gender complementarity, patrilocal endogamy, and reciprocation for women’s caregiving, despite changes that have threatened patriarchal rules of exchange.

Keywords

aging; classic patriarchy; Egypt; gender; intergenerational transfers

In poor settings, where public forms of social insurance are lacking, family is the primary support to its members. Aging parents in such settings have relied on adult children as “old-age security” (e.g., Agree, Biddlecom, & Valente, 2005; Frankenberg, Lillard, & Willis, 2002) but also have extended support to children as the transition to adulthood has been elongated (e.g., Schwartz, Kim, Uno, Mortimer, & Bengston O’Brien, 2011). These intergenerational exchanges typically involve three currencies: material support in the form of goods or money, instrumental support or caregiving, and emotional support (Soldo & Hill, 1993).

Egypt typifies the tensions between historical patterns of intergenerational exchange and recent socioeconomic changes. Historically, the state in many respects has left the responsibility of social insurance to families. In this context, both formal and informal rules structured familial exchanges to be classically patriarchal, prescribing men to head the

family and to appropriate women's labor and offspring while prescribing women to receive economic security through their fathers, husbands, and sons (Kandiyoti, 1988).

But structural changes in Egypt may be disrupting these rules of exchange (Fargues, 2005; Kandiyoti, 1988; Moghadam, 2004). As in much of Latin America and Asia (e.g., Hermalin, 2002; Palloni, Pinto, & Wong, 2009), population aging has been under way in the Middle East (Yount & Sibai, 2009). Longer life expectancies have extended the period during which multiple generations cosurvive (Uhlenberg, 1996). Lower fertility rates may have been placing a burden on poor families with fewer children than families had in the past to provide for longer-lived parents (Lee & Palloni, 1992; Schwartz, 2009). Higher schooling attainments, later marriages, and underemployment also have prolonged children's dependence on their parents (e.g., Schwartz et al., 2011; Tabutin & Schoumaker, 2005; Winckler, 2005).

In this context, not only have generational ties been affected, but gender relations also have been characterized by changes and continuities. In Egypt, gender gaps in schooling attainment have declined alongside persistently high levels of patrilocal residence and marriage between blood relatives, as well as resurgent norms of gender complementarity (Moghadam, 2004; Tabutin & Schoumaker, 2005).

When researchers have acknowledged gender differences in supportive behaviors, they often have cited evidence of women's greater instrumental and emotional support and lesser material support (e.g., Schwartz, 2009). This pattern has been attributed to women's customary role across cultures as kinkeepers, as well as their limited financial resources (Kahn, McGill & Bianchi, 2011; Knodel & Ofstedal, 2003; Schwartz, 2009). As a result, many studies of intergenerational transfers have simply included the parent's and child's genders as demographic controls (Silverstein, Parrott, & Bengtson, 1995). Although the gender hierarchies that are imbedded within families influence the distribution of resources for intergenerational transfers, certain aspects of these gendered hierarchies may change while others persist. Therefore, it is essential to move beyond stereotypes of gendered intergenerational exchanges to a more critical and contextualized examination of how gender may influence intergenerational transfers in rapidly changing contexts.

Egypt is an ideal setting to explore gendered patterns of intergenerational exchange. Located in the so-called patriarchal belt of the Middle East (Caldwell, 1982), it nevertheless has undergone marked social and economic changes in recent decades that partly pertain to women's status in society (Moghadam, 2004). This analysis examined the influence of the genders of older parents and their children on intergenerational material transfers of money and goods in Ismailia, Egypt. Using data from 4,465 parent-child dyads, we explored whether intergenerational material transfers favor mothers over fathers and daughters over sons. We then examined whether father-mother and son-daughter differences in needs and endowments accounted for observed gender gaps in intergenerational material transfers. Residual advantages in material transfers to mothers and daughters would arguably reflect persistent norms of gender complementarity and reciprocation for women's instrumental caregiving, despite structural threats to the patriarchal rules of exchange.

Background

Intergenerational Transfers Under Classic Patriarchy

According to Kandiyoti (1988), North Africa, the Muslim Middle East, and South and East Asia have been characterized by norms of *classic patriarchy*. According to this typology, girls are married at relatively young ages into households that are headed by their husbands' fathers. New brides are subordinate to the men and more senior women and the patrilineage

appropriates a woman's labor and offspring, rendering her productive contributions largely invisible. Later in her life, a woman's authority over daughters-in-law displaces the hardships of early marriage. This cycle, and women's access to old-age security from married sons, encourages women to internalize this form of patriarchy. Thus, women may seek to maximize their security through heavy investments in child rearing and the nurturing of their sons' affections. Such strategies may even result in the "aging male patriarch losing power to his wife," who expertly bargains for her own benefit within the patriarchal script (Kandiyoti, p. 280).

Classic patriarchy is a useful model for anticipating intrafamily exchanges in parts of the Arab Middle East. In Egypt, kin relations have revolved around a *patriarchal kin contract* (Joseph, 1993; Rugh, 1984), in which the members of a kin group expect to provide instrumental or material resources and to preserve the family's honor. In return, individual members expect to receive emotional, economic, and social security, and with these, a sense of identity from belonging to the kin group. The rights and obligations of kin-group members have been defined on the basis of their gender, generation, and relation. Norms of *gender complementarity*, which partly stem from Islamic prescripts, have upheld "separate but balanced" family roles for men and women (e.g., Nelson & Olesen, 1977). Accordingly, fathers, husbands, and adult sons have been expected to be the economic providers, while mothers, wives, and daughters have been expected to be domestic laborers. In return for their domestic work, women typically have relied on the financial support of male kin (Jowkar, 1986).

In Egypt, as in other classic patriarchal settings, children typically have remained in the parental home until marriage. At this point, daughters' duties often have shifted to their husbands' families, while those of sons have tended to remain with their natal or biological kin. Because sons have been the most viable forms of old-age insurance, parents have invested more in sons than daughters (Yount, 2001, 2003, 2004a). Such investments have heightened sons' duties of old-age support, which have come in the forms of coresidence, material transfers, and wives' instrumental care, especially when sons' parents are widowed or infirm (Yount, 2005).

A distinction of classic patriarchy in the Arab Middle East, as compared to other classically patriarchal settings, is that most married daughters retain enduring ties to their parents (Kandiyoti, 1988). While formally daughters' duties typically shift to their marital families, fathers have been obliged to support their daughters materially in cases of neglect, separation, or abandonment (e.g., Shaham, 1997). *Endogamy*, or marriage to a blood relative, is also common, occurring among an estimated 18% to 47% of Egyptian women (El-Zanaty & Way, 2009). Parents arguably are more vested in the well-being of these daughters because the latter can align their duties to natal and marital kin. Finally, most married daughters live near their parents, with 54% of daughter-parent dyads in our sample living in the same building, neighborhood, or village. These practices have enabled ongoing exchanges between parents and daughters (e.g., Silverstein et al., 1995), especially a daughter's instrumental care in exchange for parental material support. Given the enduring duties of parents to their married daughters and parental expectations of upward material transfers from adult sons, material transfers from parents to adult daughters may have equalled or exceeded those to adult sons.

Crises of Patriarchy and Intergenerational Transfers

Scholars have argued that temporal changes in gender norms and family systems may have disrupted existing patterns of intergenerational exchange. Kandiyoti (1988) has attributed these *crises of patriarchy* to economic changes in urban and rural areas, particularly those that have reshaped the gendered division of labor. In urban China, for example, more

frequent upward material transfers from daughters than sons have been attributed not only to economic growth, but also to increased girls' schooling and employment, associated changes in gender ideology, declines in fertility and the availability of children for parental support, and the availability of a pension system that covers retirees (Xie & Zhu, 2009). These changes in urban China have made intergenerational material support to parents more optional and something that may be provided by daughters as well as sons.

Patriarchal families in Arab–Islamic countries also have undergone dramatic changes (Moghadam, 2004). Urbanization, industrialization, and mass schooling in the Middle East have altered social structures and gender relations (Fargues, 2005; Moghadam; Tabutin & Schoumaker, 2005). Some states, moreover, have secured certain legal reforms that have bolstered women's autonomy and position in the family (e.g., Moghadam). According to some scholars (e.g., Fargues; Moghadam), the expansion of girls' schooling may have been the most dramatic cause of certain changes to the Arab–Islamic Middle Eastern patriarchal family. In Egypt, gender gaps in never-attendance at school among adults 20–24 years declined from 23% in 1992 to 8% in 2008 because of faster declines in never-attendance among women (from 34% to 15%, versus 11% to 7% among men) (El-Zanaty & Way, 2009; El-Zanaty, Sayed, Zaky, & Way, 1993). These gains have contributed to increases, especially among women, in the mean age at marriage and the proportion never-married people (e.g., Fargues; Tabutin & Schoumaker).

Still, the Egyptian family has remained a powerful icon of cultural authenticity, and threats to classic patriarchy by socioeconomic change have coincided with conservative movements to reinvigorate the moral discourse of gender complementarity (Yount, 2004b). Remarkably, certain features of the patriarchal family have persisted in the context of these other changes, namely patrilocal endogamy and women's relatively low workforce participation (Fargues, 2005; Tabutin & Schoumaker, 2005). As of the year 2000, endogamy still occurred in 38% of Egyptian marriages; the prevalence has remained fairly constant since 1991 (Tabutin & Schoumaker, 2005). Moreover, even with adjustments for undercounting, women's participation in the formal workforce (33% in Arab countries) has been less common than the world average (55%) (Fargues). Among the reasons for these patterns are state policies and legal systems (Moghadam, 2004). Egypt's reform movement, for example, took place in the early twentieth century, and women made some legal gains in the Nasser period. Yet, the emergence of Islamist groups in the 1970s created widespread political debates about the authentic roles of women in the family and society. Such debates played a part in conservative revisions of family law in Egypt and elsewhere (Moghadam, 2004). Thus, religious law was elevated to civil status. Women, for instance, have had to obtain permission from a male guardian to marry, seek employment, start a business, or travel. Although Islamic law has given women the right to own and dispose of property, it also has limited their inheritances to less than those of men. Finally, although the Islamic marriage contract has required the wife's consent and may have allowed her some stipulations, marriage has remained largely an agreement between families that have privileged the rights of the husband to his wife's body, unilateral divorce, and in cases of divorce, child custody (e.g., Welchman, 2001).

Hypotheses

Some scholars have argued that marked structural changes have created crises of patriarchy in East Asia (Xie & Zhu, 2009) and the Arab–Islamic Middle East (Fargues, 2005; Moghadam, 2004). Although such crises may have influenced customary patterns of intergenerational transfers, we argue that enduring norms of gender complementarity, patrilocality, and kin endogamy in Egypt have sheltered patriarchal systems of exchange from other macrolevel changes. This premise motivated two hypotheses about the influence of gender on material transfers between older adults and their children in Egypt. First, there

will be marked gender gaps within parents' and children's generations in the giving and receiving of intergenerational material transfers. Compared to fathers and sons, respectively, mothers and daughters will be less likely to give and more likely to receive material transfers. Second, enduring patriarchal norms of family exchange mean that these patterns will persist even after adjustments for gender gaps in need and endowments. Our focus on material transfers is important in a geographic context in which public social insurance is lacking and in a scientific context in which research on gender gaps in transfers has focused on caregiving and instrumental support (e.g., Silverstein et al., 1995; Spitze & Logan, 1990; Walker & Pratt, 1991).

Method

Study Setting

The setting for this study was Ismailia governorate, located in northeastern Egypt and housing 942,800 residents in 2006 (United Nations Development Programme [UNDP] & Institute of National Planning [INP], 2008). Since 2006, almost all households have had access to electricity (98%) and piped water (95%) (UNDP & INP) and the real GDP per capita slightly exceeds the national average (\$6,252 vs. \$5,900 in PPP\$) (UNDP & INP). Ismailia's annual rate of population growth (2.8%) also surpasses the national average of 2.1% and its dependency ratio—or the number of children 0–14 years and adults 65 or more years per 100 adults 15–64 years—is slightly lower than the national average (67 versus 70). For women, rates of secondary or higher schooling and labor force participation are slightly higher than the national rates (28% vs. 23% and 25% vs. 23%, respectively); yet, as is the case in other parts of Egypt, women's rates of literacy and labor force participation are fractions of these same rates for men (83% and 33%, respectively) (UNDP & INP, 2008). The rate of kin endogamy among ever-married women is slightly lower in northern Egypt (23%) than in Egypt as a whole (30%), as is the rate of first-cousin marriage (13% versus 16%). That said, the median age at first marriage among women 25–49 years is similar in Northern Egypt (20.5) when compared to Egypt overall (20.6). Thus, Ismailia is economically better off than elsewhere in Egypt and customary marital practices are slightly less common. For these reasons, families in Ismailia may adhere less to the patriarchal rules of exchange than do families elsewhere in Egypt.

Sample and Data

To generate the sample for this study, a household census was conducted in one rural and one urban district, including a detailed household listing and questions on household assets and amenities. An age–gender stratified sample was then selected using a 1:3 ratio for 50–59-year-olds, a 1:2 ratio for 60–69-year-olds, and a 1:1 ratio for 70-year-olds and older, within each gender. Oversampling of the oldest older adults (i.e., 70 years or older) within each gender permitted comparisons across age groups. A total of 1,182 older adults (50 years and older) were selected, of whom 1,053 (88%; 491 men, 562 women) consented and completed a baseline interview. The mean number of children ever born to this sample was about 6.4, with a range of 0–15 for women and 0–18 for men. The sample for the main analysis included 886 older adults with living children, amounting to 4,465 parent–child dyads, excluding dyads with missing data on transfers (4%; 210), parental attributes (4%; 220), and child attributes (1%; 70).

The baseline survey of all adults 50 years or older was completed by face-to-face interview. A transfers module was adapted from the Multi-Country Study of Older Adults in Southeast Asia (Hermalin, 2002). Questions included the frequency (never, occasionally, often) of material and monetary transfers in the prior year between the older parent and all living coresident and non-coresident children. Older adults also reported their residential proximity

to each living child (coresident, same building, same neighborhood, same village, etc.) and frequency of contact (visits and calls) with each non-coresident child. The parents provided basic information on the attributes of each living child, including his or her age, schooling, marital status, and number of own children. Other modules included questions about the older adult's socioeconomic status (e.g., parental and own schooling, marital history, and occupational history) and health status (e.g., objective cognitive and physical functioning, reported chronic health conditions, reported difficulty with physical tasks and activities of daily living, medications, depressive symptoms, and health-risk behaviors such as smoking).

Variables and Analysis

Our measures of transfers were based on information about the giving and receiving of material goods and money in the prior year, based on parents' reports of such exchanges with each living child. For each parent-child dyad, four binary outcomes were created that measured whether the parent (a) received money, (b) received goods, (c) gave money, or (d) gave goods.

The main explanatory variables were the genders of the older parent and index child, or the particular child in the parent-child dyad. Seven parental attributes were included to control for gender-differentiated needs for and ability to provide material transfers: his or her number of living sons and daughters, marital status at interview (married versus unmarried), grades of schooling, employment status at age 50 (employed versus not employed), number of activities of daily living (ADLs) with severe difficulty, and a 0–20 score for objective cognitive functioning based on a modified Mini-Mental Status Exam (M-MMSE) for low-literate populations (Yount, 2008). Five child attributes were included in the main analysis to control for gender-differentiated needs for and ability to provide material transfers: his or her birth order, age in years, marital status at the time of interview (married versus unmarried), grades of schooling, and residence (or not) with his or her parent. Coresidence was considered a measure of the child's need because most of the parents were either a head of household or a spouse of the head (81%) and owned their home alone or jointly with their spouse (86%). Study-design-based controls included the parent's age in years and urban versus rural residence.

In the analysis, we first examined the completeness and distribution of each variable. We then estimated bivariate associations to assess potential problems of colinearity among the covariates and to explore the distributions of measures for material transfers by gender of the parent and child. Finally, we used logistic regression to estimate several multivariate models for each outcome, first including (see Tables 3 and 4) (Model 1) the parent's gender (GP), child's gender (GC), and a vector X of study-design based controls, and then adding to this (Model 2) a vector C of the child's attributes only, (Model 3) a vector P of parental attributes only, and (Model 4) all child and parental attributes. Model 4 took the following general form:

$$\text{Ln}(T_j/(1 - T_j)) = \beta_{0j} + \beta_{GP_j} \text{GP} + \beta_{GC_j} \text{GC} + \beta_{P_j} \mathbf{P} + \beta_{C_j} \mathbf{C} + \beta_{X_j} \mathbf{X} \quad (1)$$

where T_j is the probability of transfer j ($j = 1$ to 4). To each of the full main effects models summarized in Equation 1, we added an interaction between the parent's and child's genders to explore whether the relative probability of a material transfer to or from the mother was conditional on the child's gender and vice versa (Model 5). All models were weighted to adjust for the age-gender stratified survey design and robust standard errors were estimated to account for the clustered sample. Missing values were handled using listwise deletion. The statistical software used was Stata 10.

To check the robustness of the main findings, we used a series of alternative samples and estimation strategies that accounted for having siblings nested within parents and parents nested within households. These alternatives included: (a) the same multivariate, survey-adjusted logit models for a random subsample of one parent–child dyad per parent ($n = 886$); (b) family fixed effects models for the 1,666–2,135 parent–child dyads who had within-family variation in the outcomes; (c) parent fixed effects models for the 1,384–1,818 parent–child dyads who had within-parent variation in the outcomes; (d) non-fixed effects multivariate logit models for the subsamples in (b) and (c), for comparison. The results from these sensitivity analyses were highly comparable to those from the main analyses, so the main results are based on the full sample of 4,465 dyads and the sensitivity analyses are presented in Appendix in the online version of this article and discussed at the end of the Results.

Results

Descriptive Statistics of the Sample

Table 1 shows descriptive statistics for the sample by gender of the parent (Panels 1 and 2) and child (Panel 3). On average, the parents were in their early to mid-60s, and fathers were marginally older (65 years) than mothers (64 years). About half of parents lived in urban areas. Parents had, on average, more than two living sons and more than two living daughters, with the reported mean number of living sons higher for fathers (2.8) than mothers (2.6). Compared to mothers, fathers more often were married at the time of interview (89% versus 45%), reflecting women's higher rate of widowhood (52% versus 23% of first marriages) and lower rate of remarriage (16% versus 79%) in the sample. Schooling attainment on average was low among all parents, but fathers had completed more grades of schooling than had mothers (2.9 versus 1.1 mean grades). Almost all fathers (91%) but few mothers (17%) reported employment at age 50, which reflects the low rates of women's employment in Egypt. Parents, on average, were experiencing some disability in daily living, but compared to fathers, mothers reported severe difficulty for a higher mean number of ADLs (1.0 versus 0.7). The average score for cognitive functioning also was lower for mothers (14.7) than for fathers (16.4).

Overall, fathers and mothers, respectively, had married (63% and 78%), non-coresident (56% and 67%) children in their late 20s or early 30s (29.4 and 34.7 years) with substantially more schooling than their parents (9.4 versus 2.9 grades among fathers and 8.9 versus 1.1 grades among mothers) (Table 1, Panel 2). Differences were apparent across fathers and mothers in most of the attributes of the children, with those of fathers on average being younger (29.4 versus 34.7 years), higher birth-order (3.6 versus 3.5), with more schooling (9.4 versus 8.9 grades), and more often unmarried (37% versus 22%) and still coresident (44% versus 33%) (Panel 2). Most of these differences may have resulted in part from the longer reproductive careers of fathers, leading to their higher overall fertility compared to mothers. The higher mean schooling attainment among the children of fathers as compared to mothers may have resulted in part from fathers reporting more living sons (Panel 1), who on average had more schooling than daughters (Panel 3).

Indeed, most of the attributes of sons and daughters differed in the expected directions (Table 1, Panel 3). On average, sons were older (32.6 versus 31.7 years) and so had a marginally lower birth order (3.5 versus 3.6). The older ages of boys as compared to girls may have resulted in part from girls' historical excess mortality. Thirty years ago, when these children would have been 2–3 years old on average, girls experienced a higher risk of mortality than boys (Yount, 2001). Otherwise, residence with any parent was more common among sons (49%) than daughters (27%). Although daughter–parent dyads less often coresided, a majority lived in the same building, neighborhood, or village (58% of mother–

daughter dyads and 50% of father–daughter dyads; results not shown). Daughters more often were married than were sons (76% versus 66%), which may reflect women’s earlier mean age at marriage in Egypt. Finally, sons, on average, had almost two more grades of schooling than did daughters (10.1 versus 8.2), which supports the idea that parents invested more in sons than in daughters.

Gender Distributions of Intergenerational Material Transfers

Table 2 shows the distributions of intergenerational material transfers in the prior year by gender of the parent and child. As expected, transfers from parents to children were associated with the genders of both generations. First, more than half of fathers compared to about one third of mothers ever gave material goods to their sons and daughters. Second, although fathers and mothers regularly gave goods more often to sons than daughters, both parents ever gave goods more often to daughters than sons (61% versus 57%, $p < .10$ among fathers; 38% versus 33%, $p < .05$ among mothers).

Parents transferred goods more often than they transferred money, but the latter transfers were similarly gendered: almost twice as many fathers (~ 49%) as mothers (~ 25%) gave money to their children and both parents regularly gave money slightly more often to sons than daughters. That said, there was no difference by the child’s gender in the frequency of ever receiving money from parents. Thus, in keeping with local norms of gender complementarity in intrafamily exchanges, fathers were the main providers of material transfers to children. However, sons and daughters appeared to benefit similarly often from such transfers.

Among child-to-parent material transfers, mothers received goods more often than did fathers. Such transfers most often were from son to mother (42% of these dyads), followed by daughter to mother (23%), son to father (21%), and daughter to father (8%). Upward transfers of money were similarly patterned by gender of the parent and child. The most common transfer of money was from son to mother (41% of these dyads), but then from son to father (21%), daughter to mother (17%), and daughter to father (6%). Thus, sons and daughters gave to mothers more often than to fathers, and sons gave goods and money more often than did daughters.

In general, downward material transfers from parents to children were more common than were upward transfers (Table 2). Specifically, of 3,400 exchanges of goods, 39% were from fathers and 10% were to fathers, while 26% were from mothers and 25% were to mothers. Of 2,801 monetary exchanges, 40% were from fathers and 11% were to fathers, while 23% were from mothers and 26% were to mothers. Thus, exchanges more often involved fathers giving than receiving goods and money, and slightly more often involved mothers giving than receiving goods. Mothers were net receivers of monetary transfers, by about 100 exchanges.

Table 2 also shows the relative frequencies of upward and downward material transfers. Within dyads, such transfers need not have been mutually exclusive in that a parent and child may have given money or goods to each other during the prior year. Despite this prospect, reports of bidirectional transfers within dyads were rare: less than 9% of parents reported both giving and receiving gifts and less than 7% reported both giving and receiving money. Thus, for the most part, the observed intergenerational flows of goods and money were unidirectional within each dyad.

Multivariate Models of Material Transfers from Parents to Children

Table 3 shows the estimated odds from multivariate models of material transfers from parents to children. Controlling for the parent’s age and urban versus rural residence (Model

1), mothers had lower odds than fathers of giving goods ($OR = 0.25$) and money ($OR = 0.23$), but daughters and sons had similar odds of receiving such transfers. Controlling in addition for the child's characteristics (Model 2) attenuated the parental gender gap in giving material transfers, but mothers retained lower odds than fathers of giving ($OR \approx 0.40$). These same controls increased the child gender gap in receiving, such that parents had higher odds of giving goods ($OR = 1.88$) and money ($OR = 1.48$) to daughters than to sons. Controlling for other parental characteristics (Model 3) altered little the parental gender gaps in giving goods and money, and daughters and sons retained similar odds of receiving these transfers. In the full, main effects model, which included parental and child characteristics (Model 4), mothers' lower relative odds of giving material goods were attenuated slightly more ($OR = 0.54$) than were mothers' lower relative odds of giving money ($OR = 0.46$). Daughters again had higher odds than sons of receiving goods ($OR = 1.86$) and money ($OR = 1.45$). Interactions between the parent's and child's gender were marginally significant (Model 5), showing that the odds of giving to daughters versus sons were about 40% higher among mothers than fathers.

Several adjusted associations of the parent's and child's characteristics with the parental giving of goods and money are notable (Appendix, Table A1, Models 1 and 2). Parents with additional living children had between 10% and 15% lower odds of giving to the child in the dyad, suggesting that children in this setting compete for the finite resources of their parents. Also, parents with more schooling and living in wealthier households had between 6% and 9% higher odds of giving money and goods to their children. Parental physical disability was negatively associated with giving goods, such that these odds fell by 11% with each additional ADL with severe difficulty. Likewise, an increment on the M-MMSE (indicating higher cognitive functioning) was associated with at least marginally higher odds of giving goods (6%) and money (4%). The odds of parental giving also were lower for older and especially married children, suggesting that parents give less as children become adults with their own nuclear families, and perhaps are more able to give back to their parents. Coresidence was associated with more than three times the odds that parents gave goods ($OR = 3.75$) and money ($OR = 3.26$), which may reflect the convenience of giving to coresident children and the greater dependence of such children.

Multivariate Models of Material Transfers from Children to Parents

Table 4 shows the multivariate results for material transfers from children to parents. Controlling for the parent's age and urban versus rural residence (Model 1), mothers had higher odds than fathers of receiving goods ($OR = 4.03$) and money ($OR = 3.49$), and daughters had lower odds than sons of giving goods ($OR = 0.37$) and money ($OR = 0.26$). These gender gaps persisted with the inclusion of child (Model 2) and other parental (Model 3) attributes, although mothers' higher odds of receiving goods and money were somewhat attenuated with the inclusion of both sets of variables. In fully adjusted models (Model 4), mothers had 2.55 and 2.36 times higher odds than fathers, respectively, of receiving goods and money from children, and daughters had lower odds than sons of giving goods ($OR = 0.41$) and especially money ($OR = 0.29$). Although material exchanges from sons to mothers were the most common types of upward transfer (Table 2), interactions of the parent's and child's gender were not significant in fully adjusted models of such transfers (Table 4, Model 5), implying that sons and daughters had similar relative odds of giving to mothers versus fathers.

Certain adjusted associations of parental and child characteristics with the parent's receipt of material transfers are notable (Appendix, Table A1, Model 3 and 4). First, there is some evidence of residential differences in the cultural rules of exchange, with parents in urban areas having lower odds of receiving goods and money. Net of residence and other covariates, parents with more living daughters had marginally lower odds of receiving goods

and money, which corroborates norms of gender complementarity and the shift in a daughter's kin obligations from natal to marital kin. Also, married parents had lower odds of receiving material goods and parents with less schooling had lower odds of receiving money. The latter association may indicate that less-schooled parents had fewer resources to invest in their child's early life and, as a result, their children had fewer resources to return. Supporting this point, parents had higher odds of receiving goods and money from married children, who may have accumulated more economic resources and were indebted to their parents for having financed their marriage. Also, the odds that parents received money were marginally higher for older children and for children with more schooling, which again may reflect the returns from children with more resources to parents who had previously invested in their children. Finally, parents had higher odds of receiving goods and money from coresident than non-coresident children. As noted above, most parents were the household head or the head's spouse and owned the home in which they lived, so coresident children may have been living as dependents in their parents' homes. In such cases, material transfers from coresiding children to their parents may partly have been compensation for living in the parental home. Interestingly, most of the indicators of parental need—including age, employment status at age 50, household standard of living, disability (for money received), and cognitive functioning—were not associated with receiving material transfers from children. These patterns suggest that material transfers from children were associated less with parental need than with norms about the duties of able children to their parents, especially those of sons and married children.

Sensitivity Analyses

Appendix Table A2 compares the results of our main (Model 1) and sensitivity analyses (Models 2–6) for full main effects plus interaction models of parental giving of goods and money. Across Models 2–6, mothers retained lower odds than fathers of giving goods and money to children, and daughters retained higher odds than sons of receiving goods and money. Mothers also retained higher odds than fathers of giving goods to daughters than sons. For a majority of the coefficients, the main models based on the full sample of 4,465 dyads provided the most conservative estimates of gender gaps in parental giving and in children's receiving of goods and money.

Appendix Table A3 compares the results of our main (Model 1) and sensitivity analyses (Models 2–6) for full main effects plus interaction models of parental receiving of goods and money. Across Models 2–6, mothers retained higher odds than fathers of receiving goods and money from children, and daughters retained lower odds than sons of giving goods and money. Again, for a majority of the coefficients, the main models based on the full sample of 4,465 dyads provided the most conservative estimates of gender gaps in parental receiving and in children's giving of goods and money.

Discussion

In this analysis, we used data from a probability sample of older parent–child dyads to explore the gendered patterns of intergenerational material transfers in Ismailia, Egypt. We explored whether intergenerational material transfers favored mothers over fathers and daughters over sons. We also examined whether father–mother and son–daughter differences in needs and endowments accounted for observed gender gaps in intergenerational material transfers. These questions are germane for a Middle Eastern context facing demographic and structural threats to patriarchal rules of exchange alongside persistent patrilocal endogamy and resurgent norms of gender complementarity.

This analysis also offers a comparison with research on gender and material transfers in other settings while historical patriarchal family systems are undergoing what some might

call crises of patriarchy. For example, in urban China—where the mean age at first marriage and rate of love marriages have increased, fertility has declined, and women’s employment is nearly universal—daughters now join or surpass sons in making financial transfers to their parents (Xie & Zhu, 2009). Our focus on material transfers between older parents and their children also adds to the literature on Middle Eastern families, which has focused on intergenerational coresidence (e.g., Shah, Yount, Shah, & Menon, 2002; Sibai, Yount, & Fletcher, 2007; Yount, 2005; Khadr & Yount, 2008—Sinunu, Yount, & El-Afifi, 2008 is an exception), on material transfers between spouses (Hoodfar, 1997), or on material transfers to young children (e.g., Yount, 2001, 2003, 2004a).

Results based on 4,465 parent–child dyads revealed that intergenerational material transfers remain highly gendered in Ismailia. Fathers gave children money and goods more often than did mothers, and mothers received money and goods from children more often than did fathers. Also, fathers more often gave than received material transfers, regardless of their marital status (results available upon request). Married mothers also gave material transfers more often than they received them; however, they gave less often and received more often than did married fathers; unmarried mothers received material transfers more often than they gave them (results available upon request). Such patterns corroborate gendered and generational norms of exchange in Egypt, in which fathers have lifelong economic obligations to dependent children and sons are obliged to support (especially widowed) mothers financially (Yount, 2005).

Regarding the associations of material transfers with the child’s gender, daughters made material transfers to parents less often than did sons. This pattern contradicts that in urban China (Xie & Zhu, 2009) and suggests that the effects of patriarchal crises on transfers may vary in degree or be conditional on other changes in society, or both. The crisis of patriarchy occurring in urban China, which linked gains in girls’ schooling to their increased employment, has coincided with the emergence of gender egalitarian norms and a universal pension system that rendered material transfers “symbolic” (Xie & Zhu, p. 183). In Egypt, however, persistent laws requiring a husband’s permission to work and resurgent norms favoring women’s domesticity may have dampened the labor-market and transfer effects of girls’ higher schooling (El-Zanaty & Way, 2009) and sustained the duties of able sons to provide financial support. Current high levels of unemployment among men (International Labour Organization, 2010), may nevertheless force married Egyptian women into paid work (Fargues, 2005; Kandiyoti, 1988), eroding norms of gender complementarity, and with them, the patriarchal rules of family exchange. To explore this possibility would require longitudinal data tracking the wages and transfers of parents, sons, and daughters.

As expected, daughters more often than sons received material transfers from parents. Daughters also had higher relative odds than sons of receiving material transfers from mothers than fathers. These findings have several interpretations. First, older parents and especially fathers retain stronger financial duties to more economically dependent daughters. Second, daughters may provide more noneconomic support to their parents, which parents repay with material transfers. Indeed, among parents reporting any difficulty with an ADL (148 fathers; 196 mothers), higher percentages especially of mothers named a daughter (9% fathers; 29% mothers) than a son (3% fathers; 7% mothers) as their main helper with ADLs. Thus, in Egypt and elsewhere (Suiter & Pillemer, 2006; Walker & Pratt, 1991), mothers (and especially widowed mothers) may value and materially foster the instrumental assistance of daughters.

The second question that we addressed was whether gender differences in need or endowments could account fully for more frequent transfers to women than men. If not, then residual gaps in material transfers may reflect persistent patriarchal duties of exchange (e.g.,

Joseph, 1993; Kandiyoti, 1988; Rugh, 1984). Empirically, most parental characteristics—including age, standard of living, and cognitive functioning—were weak predictors of upward material transfers, and differences in paternal and maternal attributes only modestly attenuated mothers' higher relative odds of receiving such transfers. Moreover, controlling only for father–mother gaps in marital status accounted for most of the attenuation in mothers' higher relative odds of receiving goods (from 4.03 to 3.06; full results available upon request). Parental need was thus a secondary consideration in children's decisions to make material transfers to parents. Instead, gendered rules of exchange dictating the material support of especially widowed mothers were strong predictors of upward material transfers. Also, intensive maternal child rearing may have heightened children's duties of material support. But evidence for this interpretation would require longitudinal tracking of maternal caregiving and subsequent “returns” on these investments. In the absence of such data for the Middle East, our findings still corroborate the persistence of a patriarchal kin contract, in which material support to women is a strong duty, which women may foster by investing in “kin care” (Kandiyoti, 1988).

In contrast to the weak influence of parental need on upward transfers, need may be an important consideration when parents make material transfers to children. A child's younger age, coresidence, and unmarried status strongly predicted downward material transfers. Also, controlling for gaps in the attributes of sons and daughters exposed daughters' higher odds of receiving such transfers. Further analyses adjusting only for gaps in coresidence exposed these higher odds among daughters (results available upon request). Thus, even when daughters often live patrilocally, coresidence remains a major conduit for upward and especially downward material transfers.

For most parent–child dyads, and especially those with fathers, material transfers were primarily downward. This pattern, as mentioned, may stem from a father's financial duties to his children. This interpretation is supported by the finding that children's attributes accounted for most of the explained gap in paternal and maternal giving (Table 3). Fathers' and married mothers' economic obligations to children in Egypt may have intensified with higher schooling attainments and later ages at marriage, which have extended the duration of children's economic dependence (El-Zanaty & Way, 2009; Tabutin & Schoumaker, 2005). Confirmation of this interpretation, however, requires panel data that tracks intergenerational transfers alongside these demographic changes.

This analysis has potential limitations. Notably, the questions on material transfers asked about their frequency in the prior year, but not about the actual amounts that were transferred. Therefore, we cannot determine whether the material transfers to mothers and daughters were more valuable than those to fathers and sons. Yet, we can say that both mothers and daughters were more likely to receive material transfers than were fathers and sons. Preliminarily, we also can say that mothers received goods or money regularly from a higher percentage of their children than did fathers (63% versus 39%). Future analyses might explore in detail the density of material transfers to mothers and fathers from all of their children. Comparative analyses, for example, have shown broader involvement across all children in intergenerational exchanges with older parents in the Philippines but more selective support within the lineage in Taiwan (Agree et al., 2005; Agree, Biddlecom, Valente, & Chang, 2001).

A related potential limitation of the data was that questions on transfers between older parents and each of their children did not account fully for exchanges of instrumental help. In this setting, however, the transfer especially of practical gifts may in part capture instrumental help, affective support, and the fulfillment of filial obligations. Also, data on direct instrumental help in this sample were limited to the parental transfer of grandchild

care to each child, the frequency of parental contact and communication with children generally, and parents' main helpers with ADLs, who often were one or more children. Such data do not permit a parent-child dyadic analysis of exchanges of instrumental help; yet, they do permit future, parent-level analyses of instrumental transfers from any child to the parent.

A third potential limitation of the analysis was that unobserved parental or family attributes may have driven observed intergenerational transfers of money or goods. To test this possibility, we estimated family and parent fixed effects models of material transfers. Such models were estimable for families and for parents who gave and received differently among their children. In general, the patterns of transfer for these fixed effects models were very similar to those in the main results (Appendix Tables A2 and A3). In both fixed effects models, parents retained higher odds of giving money and goods to daughters than sons and lower odds of receiving these transfers from daughters than sons. In family fixed effects models, mothers retained lower odds than fathers of giving goods or money to children and relatively higher odds than fathers of giving goods to daughters than sons. Mothers also had higher odds than fathers of receiving goods and money from children—and significantly higher relative odds than fathers of receiving money from daughters. Thus, our findings from the main analysis were robust to alternative samples and specifications.

Finally, the generalizability of the findings for Ismailia governorate may be biased by gender-differentiated risks of mortality. In this sample, daughters were one year younger than sons, on average (Table 1), which corroborates evidence of girls' excess 1–4 mortality in the 1970s (Yount, 2001), when these children would typically have been 2–3 years old. Nevertheless, other analyses of these data have shown that gender-differentiated risks of mortality do not markedly alter estimates and inferences (Yount, 2008), most likely because the excess in girls' mortality in Egypt was small relative to that in other settings (Yount, 2001).

Together, the findings from this analysis document the persistence of a classic patriarchal orientation to the family in terms of intergenerational material transfers. This orientation has been buttressed by governmental policies supporting customary ideas about men's and women's roles. To our knowledge, these data on material transfers between older parents and their children are the only such data for the Middle East. Thus, they offer unique insights into the nature and determinants of such transfers in settings like Ismailia. Among the parents, mothers appear to benefit most from these transfers, and among the children, daughters appear to benefit most. This pattern may result from a resilient patriarchal kin contract dictating the financial support of women, presumably in exchange for their investments in child rearing and elder care. Based on these findings, future research might take several directions. First, studies could elaborate on the extent to which intergenerational kin care is gendered in this context. Second, panel studies of intrafamily transfers could help to specify to what extent specific material and instrumental transfers from one generation at one point in time may influence reciprocal transfers from the other generation, both within and across genders. Third, new research could quantify more precisely the density and value of upward and downward material transfers by the genders of both older parents and their children. Such studies might be conducted across settings where the gendered division of labor varies to identify the most needed supports among older parents and their children in poor populations that still lack public safety nets. So, understanding and documenting norms and patterns of intrafamily transfers is important to maximize the redistributive patterns that promote overall well-being in poor and rapidly aging populations.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

We thank the participants and organizers of the UNFPA Seminar on Family Support Networks and Population Ageing (Doha, Qatar, June 3–4, 2009) for comments on a prior version of this article. We thank Kayla LaVilla for her assistance in the preparation of this manuscript; any remaining errors are the responsibility of the authors. This research was supported by research grants from the National Institute on Aging (1R03AG020781-01, PI Kathryn M. Yount) and the Gender Economic Research and Policy Analysis (GERPA) Initiative of the World Bank and the Center of Arab Women for Training and Research (CAWTAR) (PI David Bishai).

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Table 1
Parental and child characteristics, by gender of the parent and child, Ismailia, Egypt ($N = 4,465$ parent-child dyads)

Panel 1: Parental attributes by gender of parent	Fathers ($n = 410$)		Mothers ($n = 476$)		p
	Mean or %	SD	Mean or %	SD	
Age in years	65.0	9.3	63.8	10.0	†
Urban residence (%)	47.6		52.1		
Number of living daughters	2.7	1.5	2.5	1.5	
Number of living sons	2.8	1.6	2.6	1.5	*
Married %	88.5		44.8		**
Grades of schooling	2.9	4.4	1.1	2.5	**
Employed at age 50 (%)	91.2		16.6		**
Household standard of living score, 0–17	9.6	3.2	9.2	3.2	†
Number of ADLs with severe difficulty	0.7	1.5	1.0	1.7	**
Modified M-MMSE score, 0–20	16.4	3.3	14.7	3.6	**

Panel 2: Child's attributes by gender of parent	Children of Fathers ($n = 2,134$)		Children of Mothers ($n = 2,331$)		p
	Mean or %	SD	Mean or %	SD	
Female (%)	48.7		49.6		
Birth order	3.6	2.2	3.5	2.0	**
Age in years	29.4	10.7	34.7	10.9	**
Lives with parent (%)	43.9		32.6		**
Grades of schooling	9.4	6.1	8.9	6.3	**
Married (%)	63.0		77.8		**

Panel 3: Child's attributes by gender of child	Sons of Parents ($n = 2,270$)		Daughters of Parents ($n = 2,195$)		p
	Mean or %	SD	Mean or %	SD	
Birth order	3.5	2.1	3.6	2.2	†
Age in years	32.6	11.2	31.7	11.0	**
Lives with parent (%)	48.7		26.8		**

Panel 1: Parental attributes by gender of parent	Fathers (<i>n</i> = 410)		Mothers (<i>n</i> = 476)		<i>p</i>
	Mean or %	<i>SD</i>	Mean or %	<i>SD</i>	
Grades of schooling	10.1	5.9	8.2	6.3	**
Married (%)	66.0		75.7		**

Note. The sample in Panel 2, column 1, refers to all children in father-child dyads. The sample in Panel 2, column 2, refers to all children in mother-child dyads. The sample in Panel 3, column 1, refers to all sons in parent-child dyads, and the sample in Panel 3, column 2, refers to all daughters in parent-child dyads. Some of the children reported by married older parents may appear more than once.

† $p \leq .10$.

* $p \leq .05$.

** $p \leq .01$.

Percentage distribution of transfers in the prior year within parent-child dyads by gender of each generation and type of transfer, Ismailia Governorate, Egypt ($N = 4,465$)

Table 2

	Father		Mother		<i>p</i>
	Son (<i>n</i> = 1,095)	Daughter (<i>n</i> = 1,039)	Son (<i>n</i> = 1,175)	Daughter (<i>n</i> = 1,156)	
Parent gave goods					
Regularly	43.2	34.7	25.5	20.5	
Occasionally	13.8	25.9	7.1	17.0	
Did not give	43.8	39.5	67.5	62.5	
Parent gave money					
Regularly	33.1	27.9	18.0	16.3	
Occasionally	15.9	21.3	7.1	10.2	
Did not give	51.1	50.8	75.0	73.6	
Parent received goods					**
Regularly	11.5	3.5	27.5	8.7	
Occasionally	9.1	4.9	14.0	14.2	
Did not receive	79.4	91.6	58.5	77.1	
Parent received money					**
Regularly	9.9	2.5	25.3	7.4	
Occasionally	11.3	3.6	15.6	9.3	
Did not receive	78.8	93.9	59.2	83.2	

Note.

† $p \leq .10$.

* $p \leq .05$.

** $p \leq .01$.

Table 3 Odds that older parent ever gave goods or money to child in the prior year: Results from survey-adjusted logistic regression, Ismailia, Egypt ($N = 4,465$)

	Model 1 (SE)	Model 2 (SE)	Model 3 (SE)	Model 4 (SE)	Model 5 (SE)
Goods					
Mother (ref: father)	0.25** (8.89)	0.41** (5.07)	0.35** (4.82)	0.54** (2.85)	0.45** (3.41)
Daughter (ref: son)	1.11 (1.49)	1.88** (7.54)	1.11 (1.23)	1.86** (6.96)	1.54** (3.26)
Mother × daughter					1.41 [†] (1.99)
Money					
Mother (ref: father)	0.23** (8.09)	0.40** (4.12)	0.30** (4.63)	0.46** (2.91)	0.39** (3.55)
Daughter (ref: son)	0.96 (0.51)	1.48** (4.16)	0.95 (0.54)	1.45** (3.57)	1.22 (1.37)
Mother × daughter					1.40 [†] (1.91)

Note. Model 1 controls for parent's age and urban versus rural residence. Model 2 controls for variables in Model 1, plus child characteristics (birth order, grades of schooling, marital status, age, and, coresidence with parent). Model 3 controls for variables in Model 1, plus parent characteristics (number of living daughters and number of living sons aside from index child, marital status, household standard of living, employment status at age 50, number of ADLs with severe difficulty, and M-MMSE score. Model 4 controls for variables in Models 1, 2, and 3; Model 5 controls for variables in Model 4 plus the interaction between parent's and child's gender.

[†] $p \leq .10$.

* $p \leq .05$.

** $p \leq .01$.

Odds that older parent ever received goods or money from child in the prior year Results from survey-adjusted logistic regression, Ismailia Governorate, Egypt ($N = 4,465$)

Table 4

	Model 1 (SE)	Model 2 (SE)	Model 3 (SE)	Model 4 (SE)	Model 5 (SE)
Goods					
Mother (ref: father)	4.03** (8.63)	3.37** (6.12)	3.02** (4.06)	2.55** (3.10)	2.44** (3.30)
Daughter (ref: son)	0.37** (6.51)	0.43** (6.20)	0.36** (6.10)	0.41** (5.92)	0.38** (4.77)
Mother × daughter					1.13 (0.44)
Money					
Mother (ref: father)	3.49** (8.43)	2.75** (5.48)	2.92** (4.81)	2.36** (3.41)	2.29** (3.55)
Daughter (ref: son)	0.26** (10.30)	0.30** (10.03)	0.25** (9.84)	0.29** (9.32)	0.27** (7.24)
Mother × daughter					1.10 (0.38)

Note. Model 1 controls for parent's age and urban versus rural residence. Model 2 controls for variables in Model 1, plus child characteristics (birth order, grades of schooling, marital status, age, and coresidence with parent). Model 3 controls for variables in Model 1, plus parent characteristics (number of living daughters and number of living sons aside from index child, marital status, household standard of living, employment status at age 50, number of ADLs with severe difficulty, and M-MMSE score). Model 4 controls for variables in Models 1, 2, and 3; Model 5 controls for variables in Model 4 plus the interaction between parent's and child's gender.

† $p \leq .10$.

* $p \leq .05$.

*** $p \leq .01$.