

# **Modernization and the cultural practice of consanguineous marriage: A study of four provinces of Iran**

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## ***Abstract***

Consanguineous marriage has been the culturally preferred form of marriage in Iran. This paper examines the extent to which modernization through education, urbanization and changes in modes of production has affected the incidence of consanguineous marriage and attitudes towards consanguineous marriages. The 2002 Iran Fertility Transition Survey conducted in the four provinces of Gilan, Sistan and Baluchistan, Yazd and West Azarbaijan provides information on the degree of relationship of marriage partners from around 6550 ever-married women aged less than 50. Overall, the level of relative marriage ranged from 23 per cent in Gilan to 78 per cent in Sistan and Baluchistan. Attitudinal data were also obtained. The paper finds that the practice of relative marriage has remained surprisingly resilient in the face of modernization and that ethnicity, province and area of residence remain important determinants. On the other hand, attitudes have shifted towards marriage with a non-relative. Anthropological research would illuminate the processes of consanguineous marriage in Iran.

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## **Introduction**

The Iranian family system has been described as "a complex mosaic of individual and family change and persistence" (Abbasi-Shavazi and McDonald forthcoming; Abbasi-Shavazi and Askari-Nadoushan, 2005). The most important individual-level change in recent decades is the increased level of education across cohorts following the Islamic revolution. The timing of marriage has also shifted toward higher ages, particularly for girls, and fertility behavior and attitudes of women have changed considerably. Change within the family has tended to be stronger at the level of the individual couple. This includes decisions about the number of children to have and gender roles within the couple relationship. Despite these changes, some aspects of family at the societal level have remained the same. Labor force participation has remained low for women and is especially low for those married and with children (Ladier-Fouladi 1997; Mehryar and Tajdini 1998). Arranged marriages and family support and control of individuals within the family have remained largely intact. Marriage with a relative has also remained as one of the main characteristics of the Iranian family. The ideal choice has been marriage to a first or second cousin (Givens and Hirschman 1994; Abbasi-Shavazi, McDonald, Hosseini-Chavoshi 2003; Saadat *et al.* 2004). In this paper we analyze the levels, trends, and patterns of consanguineous marriage across four provinces of Iran. The aim is to examine the extent to which structural and ideational influences associated with modernization have modified the cultural determinants of consanguineous marriage in Iran in recent years.

## **Consanguineous marriage: Levels and Trends**

The terminology, consanguineous marriage, refers to unions between individuals who share at least one common ancestor and is conventionally applied to persons related as second cousins or closer. Globally, the most common form of consanguineous union contracted is between first cousins (Bittles 1994: 562; Bittles 2001: 2). Despite the decline of relative marriage in North America and Western Europe, consanguineous marriage is still practised in many other world regions particularly in the Muslim countries of North Africa, Central and West Asia, and in most parts of South Asia. In these regions, relative marriage accounts for 20 per cent to over 50 per cent of all marriages in recent generations (Bittles 1994: 563).

There is a substantial variation in the incidence of relative marriage across and within countries as well as by religious affiliation and region of residence. For example, Hussain and Bittles (2004: 3) showed that the highest overall prevalence of consanguineous marriage in South and Southeast Asia was recorded for Pakistan (62.7%), while by comparison, 11.9% of marriages in India were consanguineous. Qidwal, Syed, and Khan (2003) in a study of the acceptability of, and perceptions about consanguineous marriage in Karachi found that around 40 per cent of marriages were consanguineous. Nath, Patil and Naik (2004) in their study in an Indian rural community showed that 36 per cent of marriages were consanguineous. Muslims (39.4%) had a higher incidence of consanguineous marriage than Hindus (35.7 %). Using the 1997 Yemen Demographic and Maternal and Child Health Survey, Jurdi and Saxena (2003) observed that 40 per cent of marriages in Yemen were consanguineous, over 85 % of which were between first cousins. Gunaid, Hummad, and Tamim (2004) also found that around 44 per cent of marriages in Sana'a city in

Yemen were consanguineous, around 72 per cent of which were first-cousin marriages.

Among populations in which consanguinity is preferred, the highest rates of marriage to a close relative are consistently reported in more traditional rural areas and among the poorest and least educated sections of the society (Bittles 1994: 567).

### **Conceptual framework**

William Goode (1963) in his classic book on *World Revolution and Family Patterns* presented a theory on the impact of industrialization and modernization on family structure and conjugal marriage. Goode predicted that the incidence of consanguineous marriage should decrease as modernization progresses and an increasing number of individuals begin to freely choose their mates from a broader pool of potential marriage partners. He also suggested that women with more education and labor force participation will demand more freedom in the process of choosing a marriage partner. Goode concluded that:

"It can be predicted that any movement toward a conjugal family and freedom of courtship is likely to reduce the percentage of marriages between close relatives. The range of possible eligible spouses becomes much wider, and freer social intercourse reduces the simple statistical chance that a given individual will fall in love with and marry a close relative" (Goode, 1963, pp. 218-219).

Hurd (1978: 83-85) argued that urbanization epitomizes a new way of life, with two concomitant processes of social change: (1) a continued separation of economic production from the domestic setting and (2) a growing economic autonomy of women. Modern communications and mass media promote change in culture by demonstrating alternative ways of living. All these factors could lead to a disruption of the traditional family patterns.

While Goode's theory has been challenged by scholars (McDonald 1993), empirical support has been found for several of its aspects. For instance, there has been a trend towards a reduction of relative marriage in many parts of the developing world (Tfaily, 2005). Several studies have found that educated women have higher odds of marrying non-relatives than women with less education (Hussain and Bittles, 2000; Givens and Hirschman 1994; Jurdi and Sazena 2003). The prevalence of consanguineous marriages is generally lower in urban areas (Givens and Hirschman 1994). Tfaily (2005) found a reduction in recent years in the likelihood of marrying relatives in Egypt and Jordan but not among Kurds in Turkey, and in Yemen. The education level of a woman was a very strong predictor of marriage to a non-relative in Egypt, Jordan and among Turks. Women who grew up in cities/towns and/or worked before marriage were significantly less likely to marry relatives than women who were raised in the countryside and/or did not work before their first marriage. Using data from the 1992-1993 National Family Health Survey, Hussain and Bittles (2000: 433) found a negative relationship between consanguineous marriage and maternal education among the Muslim population of India. Women in consanguineous marriages commonly lived in an extended family environment.

However, Bittles (2001: 3) reported that past predictions of a rapid decline in the overall prevalence of consanguineous marriages have proved to be largely incorrect. Although some countries have experienced a declining trend in the incidence of relative marriage, in some other countries, the incidence of relative marriage has either remained constant or has increased in recent generations. A simple explanation for this observation is that, where a greater number of children survive to marriageable age, the traditional social preference for consanguineous unions can be more readily accommodated (Bittles 2001: 3; Tfamily 2005). For example, Givens and Hirschman (1994) found an increase in the level of consanguineous marriage in Iran between the 1950s and 1970s. Jurdi and Saxena (2003) also reported that the prevalence of marriage in Yemen had increased over time. Contrary to expectations based on Goode's theory, a higher or equal level of consanguineous marriage has also been found in urban areas as compared with rural areas (Khlat and Halabi 1986: 489; Gunaid, Hummad, and Tamim, 2004). Khlat and Halabi concluded that:

The continuing observance of this preferential custom in an urban setting [of Beirut] may represent the persistence of an archaic habit among modern cities' inhabitants; if this is true, then consanguineous couples should conform more than others to the traditional family pattern (Khlat and Halabi (1986: 489).

The question that arises is: how can we explain the persistence of or an increasing level of consanguineous marriage in many parts of the world? Several scholars have emphasized the importance of cultural factors in studying family change. Anthropologists have argued that any custom, to be understood properly, must be linked to other social and cultural phenomena: property, wealth, power, kinship, belief, ritual, values (Khuri, 1970: 597). Thornton and Fricke (1987) examined the influence of social and economic change on family structure and relationships, and how such economic and social transformations such as industrialization, urbanization, demographic change, the expansion of education, and the long-term growth of income influence the family? They concluded that:

While the similarities of family change in diverse cultural settings are striking, our review suggests that there is no single developmental sequence or pattern that all societies will experience. Specific aspects of change have varied across settings because of significant pre-existing differences in family structure, residential patterns of children, age at marriage, autonomy of children, and the role of marriage within ramifying systems of kinship and alliance. This essay makes the crucial point that changes within the family cannot be understood without considering the family's role in specific cultural and social contexts. Any consideration of family change must begin with a look at cultural definitions of family boundaries, the roles of family members, and the position of the family within the wider society. In addition to these structural differences in family and social organization, the processes of social and economic transformation themselves vary, producing differences in the trajectory of family change (Thornton and Fricke 1987: 770).

In relation to family change, McDonald (1994) argued that an idealized family morality is a fundamental component of the culture of all societies. Because family organization is at the core of all societies, it is a component of the society's definition of itself, its identity. Consequently, change in family organization can be expected to be slow and measured. Change occurs so long as it does not pose a major threat to cultural identity.

The cultural dimension of modernization refers to how model patterns and values are played out in today's rapidly changing society. Khlaf and Halabi (1986: 494) in their study of consanguineous marriage and modernization in Beirut found that the proportion of consanguineous couples was as high among modern-minded couples as among the traditional subpopulation. They concluded that the trend to modernization occurring in Middle Eastern societies will not necessarily cause a weakening of consanguineous marriages, and raises the question whether endogamy in this context is a structural trait that is resistant to change. Earlier, Patai (1971) had argued that the endogamous family system in the Middle East was preserved because it protected the region's political and religious institutions through maintaining social hierarchies. Furthermore, the majority of the inhabitants of most cities in the Middle East today are rural-born and maintain their ties; migration to the city does not necessarily imply an immediate change in values or lifestyle (Khlaf and Halabi 1986: 494).

Several studies found support for the importance of cultural versus modernization hypotheses. Qidwai, Syed, and Khan (2002) reported that the main reasons in favor of consanguineous marriages in Karachi were found to be arranged marriage, it is healthy to marry within the family, and it is traditional. Hussain (1999) argued that the major reasons for a preference for consanguineous marriages in Pakistan are socio-cultural rather than being for any perceived economic benefits either in the form of consolidation of family property or smaller and less expensive dowries. Gunaid, Hummad, and Tamim (2004) also noted that consanguineous marriages were equally practised in urban and rural areas, and no significant relationship was found between consanguineous marriage and education. They argued that 'deeply rooted social and cultural beliefs have had a definite influence on the current status of consanguineous marriages in Yemen'.

Bittles (1994, 2001) has listed the reasons most commonly given for the popularity of consanguineous marriage as: a strong family tradition of consanguineous unions; the maintenance of family structure and property, and the strengthening of family ties; financial advantages relating to dowry or bride-wealth payments; the ease of marital arrangements and a closer relationship between the wife and her in-laws; and greater marriage stability and durability (See also: Hussain 1999: Tfamily 2005:5). However, Khuri (1970:597) has argued that the 'social benefits which father's brother's daughter marriage is supposed to achieve (property, power, modesty and honor) can equally well be obtained through exogamous marriage'.

### **Consanguineous marriage in Iran**

Historical sources indicate that marriage between close relatives is a traditional practice in Iran (Slotkin, 1949; Ketabi, 2000). However, studies of consanguineous marriage are limited. Using data from the 1976-77 Iran Fertility Survey, Givens and Hirschman (1994) examined the trend and social correlates of consanguineous marriage in Iran. They found that around 40 per cent of respondents were married to a relative, with about 24 per cent to a near relative and 15 per cent to a far relative. There was a modest increase in consanguinity from marriage contracted in the 1950s to those contracted in the 1970s. Givens and Hirschman argued that:

One possible explanation for the rise in consanguinity, especially for rural and traditional populations, may be increased availability of first cousins and other relatives of marriageable ages. ... In a context with constant cultural preferences (cousin marriage being the ideal), the increasing availability of cousins of marriageable ages would result in an increasing incidence of consanguineous marriage. There may have been an increasing availability of cousins in urban areas as well, but the effects of availability may have been offset by other changes in socioeconomic status and cultural change resulting from modernization (Givens and Hirschman, 1994: 832-833).

Saadat, Ansari-Lari and Farhud (2004) conducted a national survey to investigate the prevalence and patterns of consanguinity in Iran, focusing on 12 ethnic/religious populations, the Persians (Shi'a and Sunni), Kurds (Shi'a and Sunni), Lurs, Azaris, Baluchis, Zabolis, Turkmans, Bakhtiaris, Ghashghais and Arabs. A multi-stage sampling design was used with a representative total sample of 306,343 couples. Consanguineous marriages were classified by the degree of relatedness between couples: double first cousins, first cousins, second cousins, and beyond second cousins. The mean proportion of consanguineous marriages in the country was 38.6 per cent, ranging from 15.9 per cent in the northern provinces to 47 per cent in the eastern provinces. Consanguineous marriages in the provinces of Sistan-Baluchistan and Gilan were 58.2 and 10.2 of all marriages, respectively. For individual cities, the highest and lowest levels of consanguinity were reported for Genaveh in Bushehr province (74.6%) and Soumeesara in Gilan province (5.2%). Patrilineal parallel cousin marriages were the most common type of consanguineous marriages, followed by matrilineal parallel cousin and cross-cousin marriages, with second cousin, beyond second cousin and double first cousin the least common.

Taking ethnic/religious populations into account, (Saadat, Ansari-Lari and Farhud, 2004: Table 2), it was found that Baluchis (59.9 %) had the highest level of consanguineous marriages followed by Sunni Persians (54.4%), Zabolis (52.0 %), Turkmans and Arabs (49.0 %), Ghashghais (48.7 %), Sunni Kurds (48.2), Bakhtiaris (43.8 %), Shi'a Kurds (43.1), Lurs (39.3 %), Azaris (38.1 %), and Shi'a Persians (35.6 %). As is clear from the figures, Sunnis had experienced higher levels of consanguineous marriages than their Shiite counterparts among both Persians and Kurds.

The 2001 Household Socio-Economic Characteristics Survey (Statistical Center of Iran, 2002) also revealed that around 41 per cent of women were married to their relatives: close relatives (21.1%) and far relatives (20.0 %). The study also showed that of 6,154 never-married youth aged 15-29, 28 per cent preferred relative marriage (29.8% for boys and 25.7% for girls). Education was negatively related to preferences for relative marriage as 27.4 per cent of literate and 53.5 per cent of illiterate respondents preferred relative marriage. Around 15.0 per cent of those with university education or higher preferred to marry a relative. Using the same dataset, Abbasi-Shavazi and Sadeghi (2005:35-38) found a significant relationship between ethnicity and relative marriage. Using language spoken at home as a proxy for ethnicity, they found that Baluchi women had the highest rate of consanguineous marriage (80.5 %) followed by Arabs (68.1 %), Lor (57.0%), Kurds (48.3 %), Fars (39.9 %), Mazandarani (33.2 %), and Gilaki (22.7 %).

## Data and method

The main data source for this paper is the 2002 Iran Fertility Transition Survey (IFTS). The aim of the IFTS was to assess recent trends and differences in fertility and associated social changes in order to understand the phenomenal fertility decline in Iran. The IFTS re-interviewed 50 per cent of women in four selected provinces who had been interviewed in the 2000 Iran Demographic and Health Survey (IDHS). Thus, the IFTS sample includes approximately 1000 households in both urban and rural areas in each of the selected provinces. The IFTS was conducted during April and May 2002, 18 months after the IDHS, and a total of 5190 questionnaires were completed for eligible women aged 15-49. A thorough analysis of the data has indicated a high quality of data collection and accuracy of the various demographic measures.

IFTS covered the four provinces of Sistan & Baluchistan, West Azarbaijan, Gilan, and Yazd. Several reasons justify the selection of these provinces. First, these provinces displayed very different fertility levels during the period, 1972–1996. A comparison of fertility levels of all provinces with the national average revealed that Sistan & Baluchistan and West Azarbaijan had higher fertility as compared to the total population, while Gilan and Yazd displayed considerably lower fertility than the national level (Abbasi-Shavazi 2000, 2002). Second, socio-economic characteristics such as literacy, employment, and access to electricity and safe water vary markedly across these provinces. Sistan & Baluchistan province (located in the south-eastern part of Iran and sharing borders with Afghanistan and Pakistan) stands out with the lowest level of socio-economic development, while Gilan and Yazd approach the highest levels of socio-economic development in the country (Abbasi-Shavazi, McDonald & Hossein-Chavoshi 2003: 3-4).

The IFTS questionnaire included around 100 questions on various demographic and socio-economic characteristics as well as attitudes of women regarding childbearing, marriage, women's employment and gender equity within and outside the family. The dependent variable of consanguinity is based on a question in the individual questionnaire that asked the respondent about her relationship with her husband (first marriage). The response categories to this question were: "Mother's Brother's son", "Mother's sister's son", "Father's Brother's son", "Father's Sister's son", "other relatives", and "non relatives". The first four categories are defined as "first cousin marriages". The fifth category includes second cousins and other relatives. Thus, no distinction can be made between second cousins and far relatives. Our analysis shows that around 40 per cent of marriages in the four provinces were consanguineous. As noted by Givens and Hirschman (1994), in rural areas of Iran it is difficult to assume a common understanding of the degree of relatedness implied by near or far relative. This is particularly true in Sistan and Baluchistan province where kinship terms, consanguinity and ethnicity are mixed. To explore the level and correlates of consanguinity, in this analysis, we shall define the dependent variable as "relative" versus "non relative", and also as "first cousin marriages" versus "other marriages".

To examine social change and attitudes of women, women were asked "In general, would it be better if a son/or daughter marry a relative or not?" The response categories to this question were "relative", "non relative", "no difference". In addition,

social and demographic characteristics of women including literacy/education, year of marriage, province and place of residence, mother's tongue as proxy for ethnicity (Baluchi, Azari, Gilaki, Farsi, Kurdi) and sect of Islam (Shiite and Sunni) were obtained in the individual questionnaire. Thus, the data provide the opportunity to study both behaviour and attitudes of women regarding consanguineous marriage in the four provinces under scrutiny.

The variable, marriage cohort, enables us to examine the time trend in consanguineous marriage in the four provinces. Controlling for marriage cohort, place of residence (urban or rural) and education can be considered to be associated with modernization. On the other hand, religion and ethnicity can be considered to be measures that are indicative of culture. The multivariate analysis at the end of the paper enables us to examine the relative importance of modernization influences compared to cultural influences. Our hypothesis, consistent with the literature, is that ethnicity, the strongest cultural variable, will have the strongest influence.

## RESULTS

### **Levels and trends of consanguineous marriage in the four provinces**

To measure the trend of consanguineous marriage, respondents were categorized into three marriage cohorts according to their year of first marriage. The marriage cohorts are defined to represent three periods of social change in Iran as follows:

*Before the 1979 Islamic Revolution:* During this period, the first national family planning program was implemented by the Shah, the legal minimum age at marriage for boys and girls was increased, and various programs were implemented to improve the status of women in the society.

*The years 1979 and 1989:* This is the first decade following the Islamic revolution when the country experienced phenomenal social and political change. It is also the period of the Iran-Iraq War. The family planning program was suspended, the war situation changed peoples' lives, a rationing system was introduced to meet people's basic needs, and the legal minimum age at marriage was lowered. On the other hand, the egalitarian nature of the revolution led to considerable improvements in education and health systems, and there were major improvements in facilities in rural areas.

*Post 1990:* The period from 1990 onwards was more pragmatic in the approach to social and economic issues. The government implemented many infrastructure projects in order to improve the economic situation of the country. The family planning program was revived during this period and the Islamic government supported the family planning program and provided contraceptives to people throughout the country (Abbasi-Shavazi et al. 2002). The election of the Khatami government in 1997 heralded a democratization period when various new political groups formed and the society experienced shifts on political issues. Freedom of speech and expression of different values and attitudes became more prevalent and restrictions on peoples' personal and individual behavior became relatively more limited.



As discussed earlier, consanguineous marriage has been very common in Iran. If the incidence of cousin marriage were to fall across time, this would suggest that there were new ideas about the nature of the marriage relationship. It would suggest that family control over marriage was waning thus providing more autonomy to the younger generation. Given the huge changes in education levels across cohorts, Table 1 shows the rather surprising result that, for all women in the four provinces, there has been little or no change across cohorts in the incidence of marriage with a relative. Around 38 percent of marriages for the first marriage cohort were consanguineous, the percentage increased to around 43 for the second cohort and then declined to 39 per cent for the third cohort. Given the changes in education level and social changes across these years, this trend suggests that cultural factors may have played a significant role in the persistence of cultural norms against the forces of modernization.

Table 1 shows the levels and trends of consanguinity by province, area of residence, education, sect of religion, and ethnicity. Consanguineous marriage stands at more than 77 per cent for all women in Sistan and Baluchistan. Despite its high level of development, marriage with a relative remains very prominent in Yazd accounting for over 46 per cent of all marriages. On the other hand, around 32 and 24 percent respectively of marriages in West Azarbaijan and Gilan were consanguineous. The trend of relative marriages in the four provinces is mixed. However, only Gilan has experienced a consistent decline in the level of consanguinity; the other provinces showed an increase during the first two periods, and then a declining trend during the last two periods. However, the level of consanguinity has not changed in the provinces very much, and the provincial differences have also been constant across cohorts.

The incidence of consanguinity is lower for women who grew up in urban areas (around 35 per cent) relative to those who were reared in rural areas (46 per cent). Consanguinity has increased in rural areas across marriage cohorts but women in urban areas display the same pattern as the four provinces: initial increase followed by decline. The rise in rural areas is probably the result of selective out-migration of women more likely to have not married a relative.

There is a strong inverse relationship between women's education and consanguinity across marriage cohorts. Illiterate women were more likely than women with any other level of education to marry their relatives. As a whole, around 47 per cent of women with no schooling had married their relatives (first or second cousins). The figures for women with primary, secondary, and diploma and higher were 41, 34 and 25, respectively. There has been a general increase in consanguinity over time for women with no education and for those with primary education. This is probably again the result of selection as the low education categories became much less common across time. For women with secondary, and diploma and higher levels of education, there has been a decrease in consanguinity.

IPTS provides data on sect of religion and ethnicity. Sunni women (around 58%) were more likely to marry their relative than Shiite women (33%). There has been an increasing trend in consanguinity for Sunni women but the level of relative marriage increased for Shiite women during the first period and then declined during the last two periods. There was a variation in the level of consanguinity across cohorts among

ethnic groups. Consanguinity was exceptionally high among Baluchi women, 85 per cent of whom had married to a relative. The incidence of consanguineous marriage was lower than 50 per cent among other ethnic groups. The level of consanguinity was around 49 per cent among Farsi speaking women followed by Kurds (34%), and Turks (32%). Gilaki women had the lowest percentage of relative marriage (23%). There has been an increasing trend during the first two periods in consanguinity for Farsi, Turki and Kurdi speaking women, but a declining trend for Baluchi and Gilaki women over the same period. This may suggest that the latter two groups were less influenced by the changes that came with the Islamic revolution than were the other groups. For Gilaki women, the decreasing trend continued across cohorts but, for Baluchi women, consanguineous marriage was even more prominent in the most recent period (87%). Overall, the broad picture is that each ethnic group had its specific level of consanguineous marriage that was maintained across the 30 years of marriages shown in the table.

Our analysis showed that around 53.1 per cent of all consanguineous marriages were first cousin marriages, or 21.3 per cent of all marriages. To explore the relationship between first cousin marriage and other socio-cultural variables, we repeated the same analysis for the first cousin marriages versus other marriages (Table 2). The pattern was more or less similar to the results shown in Table 1.

### **Attitudes towards consanguinity**

To examine social change and attitudes of women, the respondents were asked "*In your view, would it be better if a girl marry a relative or non relative?*". This question was then repeated for boys. The response categories to this question were "relative", "non relative", and "no difference". Our analysis showed that women's attitudes towards consanguineous marriage were the same for both girls and boys. Thus, the results presented in Table 3 shows percentages of ever married women 15-49 agreeing with consanguinity (marry a relative) for both girls and boys by demographic characteristics and marriage cohort.

Overall, around 25 per cent of women agreed that it would be better for boys and girls to marry a relative. The differences across marriage cohorts are very small (26.5 to 24.7) indicating that women of different generations had adopted the same attitudes to relative marriage by 2002. At the provincial level, the only major exception to this finding is for the province of Yazd where the most recent marriage cohort was much less in agreement with relative marriage than the pre-1979 marriage cohort. A strong preference for relative marriage (63%) remains prevalent only in Sistan & Baluchistan.

According to characteristics of the women, the patterns of response on attitudes to relative marriages were similar to those observed in Table 1 for behaviour. Women in rural areas (30%) were more in favour of relative marriages for boys and girls than those in urban areas (20%). Those in urban areas who had married more recently were somewhat less likely than those married earlier to approve of marriage with a relative.

The pattern of attitudes by education across marriage cohorts is very interesting. It shows that the percentage that favoured marriage with a relative **increased** for all education categories from the first cohort to the third cohort. This means, effectively, that within each education level, younger women were more likely than older women

to favour marriage with a relative. Accordingly, the absence of differences in attitudes across marriage cohorts for all women results from the shift in the composition of the population by education across marriage cohorts, not to constant attitudes within education groups.

Sunni women were more than three times more likely than Shiite women to agree with relative marriage and the ethnic variation in attitudes toward relative marriage was relatively similar to behaviors. Around 75 per cent of Baluchi speaking women were in favour of consanguinity while only 7.5 per cent of Gilaki women reported that it would be better if girls/boys marry a relative. Not unexpectedly, those who had themselves married a relative were much more likely to agree with relative marriage for boys and girls(45%) than those who had not married a relative (20%).

While the 'no difference' category makes explanation tentative, it is interesting that attitudes to marriage with a relative seem to be running ahead of behaviour. Thus, there is some evidence that behaviour may be modified somewhat in this regard in the future reflecting some shift away from traditional approaches to marriage. The shift is apparently driven by changes in the educational composition of the population rather than by attitudinal changes within educational categories.

### **Multivariate analysis: behaviour**

We now turn to a set of multivariate results that provide clues of possible causal relationships. Odds ratios in the Table 4 are estimated using logistic regression. Consanguinity (married to a relative vs. non-relative) is the dependent variable. Independent variables used in this analysis are marriage cohorts (to observe the effect of time), education and area of residence (to observe the effects of modernization) and sects of Islam and ethnicity (to observe the effects of culture). In this analysis, finer categories of marriage cohort are used so that time trends can be observed more closely.

Model 1 shows the impact of time controlling for province and place of residence in 2002. Compared to those married before 1978, marriage with a relative was 1.24 times more likely for those marrying in 1978-83 and 1.30 times more likely for those marrying in the years 1984-89. This suggests that social changes associated with the Islamic revolution may have increased the incidence of consanguineous marriage. For the two most recent periods of marriage, however, there is no significant difference in the incidence of consanguinity compared with marriage before 1978. Nevertheless, there is no evidence of any downward trend in the level of marriage with relatives.

In relation to the two control variables, marriage with a relative was significantly less likely for those living in urban areas than for those living in rural areas and, as observed in the bivariate analysis, there were very large differences across provinces with those in Sistan & Baluchistan being 10.7 times more likely to marry a relative than those in Gilan. Women in Yazd and West Azarbaijan were also three times and around one and half times, respectively, more likely to have married a relative than women in Gilan.

Model 2 adds in the effect of education. There was no significant difference in the levels of consanguineous marriage between women who were illiterate and those who

had primary and secondary education. Only those with tertiary education were significantly different being 40 per cent less likely than illiterate women to marry a relative. The addition of education had little impact on the effects of the other variables in the model when compared to Model 1. Thus, the impact of the most important modernization variable, education, seems to be small.

In Model 3, the impacts of the two cultural variables, ethnicity and sect of Islam are added. Because of the very close association between province and ethnicity, in this model, province has been removed. This model clearly confirms the importance of ethnicity in the levels of consanguineous marriage in Iran. The Baluch are 3.5 times more likely than the majority Fars ethnic group to practice consanguineous marriage. The other three groups, Turks, Gilaki and Kurds, are all much less likely than the Fars group to have married a relative. These three groups are all located in the north-west of the country where modern views may be somewhat more advanced than in other parts of the country. Although much less important than ethnicity, sect of Islam has a statistically significant impact once other variables are controlled, with those of the Shiite sect being about 30 per cent less likely than Sunnis to marry a relative. In Model 3, after the addition of the cultural variables, the effects of time (marriage cohort) and of place of residence remain relatively unchanged.

Table 5 repeats the analysis of Table 4 but the dependent variable is now marriage to a first cousin rather than marriage to any relative. In this analysis, time (marriage cohort) has no significant effect from which it would be concluded that the apparent significant increase in relative marriage in the 1980s (Table 4) was an increase in marriage to more distant relatives than first cousins. The effects of education upon first cousin marriage are very similar to those for marriage to any relative except that the lower rate of consanguinity among the tertiary educated is even lower for first cousin marriages. For first cousin marriage, the urban-rural difference remains very significant in statistical terms but the effect is lower than for all relative marriages. This means that urban consanguinity, controlling for all other factors, is relatively more likely to be consistent of first cousin marriage. The effects of sect of religion are the same in Tables 4 and 5 suggesting that this effect relates roughly equally to any relative marriage. The most important shift between Tables 4 and 5, however, is that relating to relative marriage among the Baluch. The effect of Baluch ethnicity is much smaller for first cousin marriage than it is for marriage to any relative indicating that the Baluch practice marriage with relatives beyond the first cousin to a much higher degree than the reference group, the Fars people. This is not a conclusion that would be drawn from an examination of the bivariate data in Tables 1 and 2; it is a finding that emerges only when other important determining variables are also taken into account in the multivariate analysis.

### **Multivariate analysis: attitudes**

IFTS also obtained information on current attitudes to consanguineous marriage. An important group to consider here are women who themselves were married to a relative but who, at the time of the survey in 2002, did not agree with consanguineous marriage. This is a strong indication of the potential for social change. Table 6, therefore, examines which women who had married a relative were more likely to now be opposed to marriage with a relative.

The results are shown separately for marriages of girls and marriages of boys but there is little difference between the two indicating a cultural consistency on the part of respondents as distinct from any gender bias. Here we shall describe the results relation to marriage of girls.

Model 1 shows the impact of education, age (marriage cohort), place of residence and province. Neither age nor place of residence were significant determinants of opposition to consanguineous marriage among those who themselves had married a relative. On the other hand, the effects of education and province were strong. Here, we observe an apparent significant impact of modernization manifested by education. As expected, those with higher levels of education were more likely to be opposed to marriage with a relative. Opposition to consanguinity was more evident in Gilan than in other provinces, not an unexpected result given the low levels of consanguinity in that province. In contrast, women in Sistan & Baluchistan where consanguineous marriage remains the norm were very unlikely to be opposed to consanguineous marriage. Again consistent with modernization theory, this suggests that opposition to traditional behaviour becomes stronger as that traditional behaviour becomes less and less evident (the S-curve of social change).

As in previous analyses, Model 2 drops province and includes the cultural variables, ethnicity and sect of Islam. Interestingly, sect of Islam has a large and very significant effect upon opposition to consanguineous marriage among women who themselves had married a relative. Women of the Shiite sect were twice as likely to be opposed as Sunni women after other characteristics are controlled. This probably reflects the more reformist and dynamic nature of the Shiite philosophy compared to the Sunni.

As was the case with the province variable, the effects of ethnicity were associated with the level of consanguineous marriage within each ethnic group. Where consanguinity was the norm, attitudes continued to support it; where consanguinity was less common, women who themselves had married a relative were opposed to consanguinity.

Interestingly, however, once sect and ethnicity are included (Model 2), the effect of education becomes much more muted than when these variables are not included. This suggests that education alone does not have a large effect on attitudes to consanguineous marriage. Rather, it is the association of education with cultural characteristics (sect of Islam and ethnicity) that gives education its impact.

## **Discussion**

Consanguineous marriage has been the culturally preferred form of marriage in Iran. In this paper we have analyzed the levels, trends, and patterns of consanguineous marriage across four provinces of Iran. The main aim was to examine the extent to which modernization through education and place of residence and changes has affected the incidence of consanguineous marriage compared with cultural influences. Two main theoretical approaches are considered in the analysis. According to Goode's theory, the incidence of consanguineous marriage should decrease as modernization progresses and an increasing number of individuals begin to freely choose their mates from a broader pool of potential marriage partners. The theory of idealized family morality, on the other hand, postulates that the effects of modernization may not be as

linear and predictable as modernization theory suggests because the acceptance of the new is always filtered through cultural processes that may be positive or negative in relation to change.

We have found that around 40 per cent of marriages in Iran over the three decades from 1970 onwards were consanguineous. However, the incidence of consanguineous marriage varied substantially across the four provinces that were surveyed ranging from 24 per cent in Gilan to 77 per cent in Sistan and Baluchistan. To measure the trend of consanguineous marriage over time, respondents were categorized into three marriage cohorts according to their year of first marriage: *before the 1979 Islamic Revolution, during 1979 and 1989, and post 1990*. The time trend analysis showed that, compared to the 1970s, there was a small increase in the incidence of consanguineous marriage in the 1980s. The increase in the 1980s was an increase in marriage with relatives more distantly related than first cousins. However, there was no significant difference in the extent of relative marriage in the 1990s compared with the 1970s. The absence of change in behaviour from the 1970s to the 1990s is all the more significant because this was a period in which education levels of women increased dramatically and urbanization was rapid. Indeed, analysis by marriage cohort showed that the incidence of marriage with a relative increased from the 1970s to the 1990s in every category of education. The overall stability of consanguinity across time was therefore, a product of the change in educational composition rather than a change in the behaviour of the educated. The incidence of consanguinity in rural areas also increased across time reflecting the selective effects of rural-urban migration, again suggesting the influence of compositional change rather than change of behaviour.

Our multivariate analysis has confirmed the dominant influence of cultural variables especially ethnicity. Across time, ethnicity has remained by far the most important determinant of consanguineous marriage. In contrast, the modernization variable, education, had little significant effect upon behaviour, the effect being only for those with tertiary education.

Our analysis of attitudes, an indicator of future change, again confirmed the dominance of cultural factors. Being of the Shiite sect was a strong predictor of opposition to consanguineous marriage among women who themselves had married a relative. Furthermore, there was evidence that growing opposition to consanguineous marriage was associated with ethnicity with opposition being higher among women who themselves had married a relative in ethnic groups where consanguineous marriage was less common. Consistent with the theory of idealized morality, the effects of education (modernization) were filtered through the cultural variables, sect of Islam and ethnicity. The analysis that we have undertaken takes understanding about as far as it can go using quantitative methods. Further understanding of the processes of consanguineous marriage in Iran requires qualitative or anthropological research.

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**Table 1. Percentage of consanguinity (married to any relative) among ever married women 15-49 by selected characteristics and marriage cohort, IFTS 2002**

Marriage cohort		<1979 (Before Islamic revolution)		1979-89 (First years of revolution and war)		1990+ (Construction and policy reforms)		Total	
		%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
<b>Characteristics</b>									
<b>Province</b>									
	Gilan	25.4	316	24.9	453	22.3	508	24.0	1277
	West Azarbaijan	27.3	371	38.1	495	31.1	502	32.6	1368
	Sistan and Baluchistan	78.1	297	74.8	480	79.5	519	77.4	1296
	Yazd	45.0	350	50.9	463	42.1	436	46.3	1249
<b>Area of residence</b>									
	Rural	42.0	675	46.8	876	47.4	1068	45.8	2619
	Urban	34.2	659	39.3	1015	30.7	897	35.0	2571
<b>Education</b>									
	Illiterate	39.5	855	48.0	736	61.0	419	46.9	2010
	Primary	37.4	360	45.4	648	40.0	646	41.5	1654
	Secondary	41.8	52	35.6	302	32.6	480	34.3	834
	Diploma or higher	17.5	67	28.0	205	26.1	420	25.8	692
<b>Sect of religion</b>									
	Sunni	53.0	372	59.6	571	59.0	644	57.8	1587
	Shiite	31.8	962	35.4	1320	30.1	1321	32.5	3603
<b>Ethnicity</b>									
	Fars	49.3	483	54.0	662	43.0	633	48.7	1778
	Turk	26.2	235	37.1	345	29.7	323	31.6	903
	Gilak	26.1	269	21.6	371	21.7	411	22.8	1051
	Kurd	27.6	165	39.6	206	32.9	221	33.8	592
	Baluch	85.8	182	81.6	307	86.8	377	84.8	866
<b>Total</b>		<b>37.9</b>	<b>1334</b>	<b>42.6</b>	<b>1891</b>	<b>39.3</b>	<b>1965</b>	<b>40.1</b>	<b>5190</b>

**Note:** % indicates first cousin rate weighted by urban/rural population of four provinces, and *n* indicates total number for both married to relative and non-relative.

**Table 2. Percentage of consanguinity (married to first cousin) among ever married women 15-49 by selected characteristics and marriage cohort, IFTS 2002**

Marriage cohort		<1979 (Before Islamic revolution)		1979-89 (First years of revolution and war)		1990+ (Construction and policy reforms)		Total	
		%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
<b>Characteristics</b>									
<b>Province</b>									
	Gilan	14.9	316	11.3	453	8.0	508	10.9	1277
	West Azarbaijan	12.1	371	17.5	495	16.2	502	15.6	1368
	Sistan and Baluchistan	45.2	297	42.4	480	48.2	519	45.4	1296
	Yazd	28.8	350	29.6	463	24.0	436	27.5	1249
<b>Area of residence</b>									
	Rural	23.1	675	24.5	876	25.2	1068	24.5	2619
	Urban	19.1	659	19.9	1015	16.1	897	18.4	2571
<b>Education</b>									
	Illiterate	21.5	855	28.0	736	36.2	419	26.8	2010
	Primary	22.3	360	23.2	648	22.6	646	22.8	1654
	Secondary	24.3	52	14.5	302	14.7	480	15.3	834
	Diploma or higher	7.5	67	9.7	205	11.3	420	10.4	692
<b>Sect of religion</b>									
	Sunni	29.2	372	32.9	571	34.4	644	32.6	1587
	Shiite	17.7	962	17.2	1320	14.5	1321	16.3	3603
<b>Ethnicity</b>									
	Fars	29.5	483	28.9	662	23.9	633	27.3	1778
	Turk	14.4	235	16.7	345	16.0	323	15.8	903
	Gilak	14.9	269	9.2	371	7.4	411	10.0	1051
	Kurd	10.1	165	19.3	206	15.3	221	15.3	592
	Baluch	49.9	182	49.5	307	53.6	377	51.4	866
<b>Total</b>		<b>21.0</b>	<b>1334</b>	<b>21.9</b>	<b>1891</b>	<b>20.8</b>	<b>1965</b>	<b>21.3</b>	<b>5190</b>

**Note:** % indicates first cousin rate weighted by urban/rural population of four provinces, and *n* indicates total number for both married to relative and non-relative.

**Table 3. Percentages of ever married women 15-49 agreeing with consanguineous marriage (married to a relative) for both girls and boys by characteristics and marriage cohort, IFTS 2002**

Marriage cohort		<1979 (Before Islamic revolution)		1979-89 (First years of revolution and war)		1990+ (Construction and policy reforms)		Total	
		%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>
<b>Characteristics</b>									
<b>Province</b>									
	Gilan	10.8	316	6.6	453	8.9	508	8.5	1277
	West Azarbaijan	23.7	371	22.0	495	19.5	502	21.5	1368
	Sistan and Baluchistan	61.2	297	64.4	480	63.7	519	63.4	1296
	Yazd	27.4	350	22.0	463	16.9	436	21.7	1249
<b>Area of residence</b>									
	Rural	31.5	675	31.0	876	29.9	1068	30.7	2619
	Urban	22.0	659	20.9	1015	19.3	897	20.6	2571
<b>Education</b>									
	Illiterate	31.7	855	38.6	736	48.6	419	37.6	2010
	Primary	19.4	360	20.6	648	26.3	646	22.7	1654
	Secondary	10.3	52	12.5	302	15.0	480	13.8	834
	Diploma or higher	7.6	67	12.5	205	11.6	420	11.5	692
<b>Sect of religion</b>									
	Sunni	48.9	372	49.7	571	47.4	644	48.6	1587
	Shiite	17.4	962	15.0	1320	14.1	1321	15.3	3603
<b>Ethnicity</b>									
	Fars	30.3	483	28.0	662	20.4	633	25.8	1778
	Turk	14.4	235	16.1	345	16.9	323	15.9	903
	Gilak	11.6	269	4.6	371	7.5	411	7.5	1051
	Kurd	34.7	165	29.7	206	24.6	221	29.2	592
	Baluch	71.9	182	77.7	307	73.5	377	74.6	866
<b>Current marriage</b>									
	Married a non-relative	22.3	1012	20.5	1407	18.3	1484	20.1	3903
	Married a relative	42.1	322	42.6	484	49.2	481	44.9	1287
<b>Total</b>		<b>26.5</b>	<b>1334</b>	<b>25.3</b>	<b>1891</b>	<b>24.7</b>	<b>1965</b>	<b>25.4</b>	<b>5190</b>

**Note:** % indicates first cousin rate weighted by urban/rural population of four provinces, and *n* indicates total number for both married to relative and non-relative.

**Table 4. The odds ratios from logistic regression analysis of consanguinity (married any relative), IFTS 2002**

Variable name	Model 1		Model 2		Model 3	
	Odds ratio	Sig.	Odds ratio	Sig.	Odds ratio	Sig.
<b>Marriage cohort:</b> <1978 (ref.)						
1978-83	1.238	*	1.259	*	1.207	*
1984-89	1.295	**	1.343	*	1.278	*
1990-95	1.099	ns	1.172	ns	1.069	ns
1996+	0.993	ns	1.133	ns	0.977	ns
<b>Education:</b> Illiterate (ref.)						
Primary			1.059	ns	1.163	ns
Secondary			0.938	ns	1.110	ns
Diploma or Higher			0.594	**	0.721	**
<b>Sect of Islam:</b> Sunni (ref.)						
Shiite					0.714	*
<b>Ethnicity:</b> Fars (ref.)						
Turk					0.425	**
Gilak					0.267	**
Kurd					0.344	**
Baluch					3.417	**
<b>Area:</b> Rural (ref.)						
Urban	0.593	**	0.649	**	0.686	**
<b>Province:</b> Gilan (ref.)						
Yazd	3.130	**	3.036	**		
West Azarbaijan	1.556	**	1.471	**		
Sistan & Baluchistan	10.750	**	10.210	**		
<b>Constant</b>	0.357	**	0.358	**	1.584	**
Cases included in model	5190		5190		5190	

**Note:** \* = Significant at <0.05 level \*\* = Significant at <0.01 level ns = Significant at <0.01 level

**Table 5. The odds ratios from logistic regression analysis of consanguinity (married first cousin), IFTS 2002**

Variable name	Model 1		Model 2		Model 3	
	Odds ratio	Sig.	Odds ratio	Sig.	Odds ratio	Sig.
<b>Marriage cohort:</b> <1978 (ref.)						
1978-83	1.140	ns	1.193	*	1.154	ns
1984-89	1.038	ns	1.139	ns	1.095	ns
1990-95	1.077	ns	1.237	ns	1.152	ns
1996+	0.900	ns	1.139	ns	1.026	ns
<b>Education:</b> Illiterate (ref.)						
Primary			0.986	ns	1.063	ns
Secondary			0.706	**	0.797	ns
Diploma or Higher			0.460	**	0.528	**
<b>Sect of Islam:</b> Sunni (ref.)						
Shiite					0.702	*
<b>Ethnicity:</b> Fars (ref.)						
Turk					0.451	**
Gilak					0.272	**
Kurd					0.297	**
Baluch					1.613	**
<b>Area:</b> Rural (ref.)						
Urban	0.694	**	0.799	**	0.827	**
<b>Province:</b> Gilan (ref.)						
Yazd	3.298	**	3.131	**		
West Azarbaijan	1.538	**	1.384	**		
Sistan & Baluchistan	6.710	**	5.969	**		
<b>Constant</b>	0.139	**	0.147	**	0.645	**
Cases included in model	5190		5190		5190	

**Note:** \* = Significant at <0.05 level \*\* = Significant at <0.01 level ns = Significant at <0.01 level

**Table 6. The odds ratios for opposition to consanguineous marriage for girls and boys (girls/boys would better to marry a non-relative) from logistic regression analysis of women who themselves married a relative, IFTS 2002**

Variable name	Girls				Boys			
	Model 1		Model 2		Model 1		Model 2	
	Odds ratio	Sig.	Odds ratio	Sig.	Odds ratio	Sig.	Odds ratio	Sig.
<b>Marriage cohort:</b> <1978 (ref.)								
1978-83	1.231	ns	1.312	ns	1.171	ns	1.240	ns
1984-89	1.320	ns	1.397	*	1.322	ns	1.385	*
1990-95	1.004	ns	1.098	ns	1.073	ns	1.155	ns
1996+	0.835	ns	1.072	ns	0.856	ns	1.082	ns
<b>Education:</b> Illiterate (ref.)								
Primary	1.406	**	1.257	ns	1.435	**	1.316	*
Secondary	2.047	**	1.437	*	2.064	**	1.481	*
Diploma or Higher	1.832	**	1.309	ns	1.953	**	1.417	ns
<b>Sect of Islam:</b> Sunni (ref.)								
Shiite			2.010	**			1.754	**
<b>Ethnicity:</b> Fars (ref.)								
Turk			1.819	**			1.870	**
Gilak			2.832	**			2.814	**
Kurd			1.520	ns			1.328	ns
Baluch			0.150	**			0.158	**
<b>Area:</b> Rural (ref.)								
Urban	1.072	ns	0.900	ns	1.078	ns	0.914	ns
<b>Province:</b> Gilan (ref.)								
Yazd	0.569	**			0.599	**		
West Azarbaijan	0.527	**			0.547	**		
Sistan & Baluchistan	0.056	**			0.061	**		
<b>Constant</b>	1.285	ns	0.298	**	1.214	ns	0.326	**
Cases included in model	2355		2355		2355		2355	

**Note:** \* = Significant at <0.05 level \*\* = Significant at <0.01 level ns = Significant at <0.01 level