

Demographic Implications of the Declining Role of the Father in Western Society

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As the 21st century begins, two very distinct versions of the father will compete for ascendancy across the world's community of cultures. One version is of very recent vintage and casts the role of the social father as supernumerary or optional. Cultures which adopt such a version tend to have high levels of divorce and out-of-wedlock births plus a pervasive cash economy as defining characteristics. The mother-child(ren) dyad becomes the familial unit of such societies. A second, older, version adheres the father to the mother-child(ren) dyad to form the traditional nuclear family. Without commenting upon desirability, it is argued that, when compared to alternative familial structures, those cultures which both minimize fatherless families and systematically restrict women's roles to that of motherhood do and will have – across generations – a demographic advantage. And, in terms of cultural evolution, those cultures which emphasize triadic families of father-&-mother-&-children are positioned to systematically displace and/or to replace those cultures which emphasize the mother-&-children dyadic family.

Key Words: Cultural evolution, gender roles, father-child relations, divorce, single-parent births

Rule #1: All Politics are local.

Rep. Tip O'Neill

Rule #2: All long-term politics are reproductive strategies.

Rule #3: All effective long term politics camouflage Rule #2.

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The generalized imagery of the (U.S.) father figure has become something of a kaleidoscope which has been repeatedly turned by academics and the literati within the last quarter century. (See Demos [1986], Griswold [1993], LaRossa [1997], LaRossa et al. [1991], Nash [1965, 1976] for historical perspectives on the U.S. father).

Until very recently – the latter part of the 20th century – the social father was a given in virtually any and all societies (Hendrix, 1996, Hewlett 1992; Lamb, 1987, Mackey, 1996; Malinowski, 1927;

Van den Berghe, 1979). Two very distinct, antinomial interpretations of this given are available in relationship to the value or function of the current generation of fathers within the U.S. and within any other society with an industrialized-service oriented economy. First, it can be argued that prior fathers had served the dual roles of protector & provider which were essential to the survival of their wives as well as their children. However, current governmental protectors, viz. local police, state police, the national guard, and the nation's armed forces, have efficiently and successfully undertaken the role of protector. The husband/father, who is less well trained for this role, is not needed. Similarly, governmental agencies, through local, state, and federal programs, have made death from privation and malnutrition extremely unlikely. Hence, the father's role of provider can also be supplanted either by working mothers and/or by governmental agencies. The argument would finish with the conclusion that social fathers in an industrialized, service-oriented, information based economy represent an anachronism and are best understood as being somewhere between supernumerary or optional. On the other hand, the second interpretation argues that the sheer omnipresence of social fathers strongly infers important functions of fatherhood that transcend differences in economics, religions, political structures, ecologies or diets.

This article takes the second position and argues that, across generations, biocultural dynamics lend an inherent advantage to those cultures which adhere men/fathers to the mother-child dyad and lend an inherent disadvantage to those cultures which systematically abrade men from the status-role complex of the social father. Framed a little differently, it is argued that those cultures which more keep the nuclear family intact will have a more promising trajectory across generations than will those cultures whose expectations view the social father as either supernumerary or optional. It should be made clear that the focus of this inquiry is upon biocultural viability, across generations, and not upon cultural desirability nor upon appropriate versus inappropriate lifestyles.

Cultural Evolution and Biocultural Extinction

Although each and every individual on this planet is guaranteed mortality, some cultures - intact social groups - transcend individual mortality and last innumerable generations. However, all cultures are

not so blessed, and the ethnographic literature is replete with examples of cultures which are simply no more. They are gone and gone forever. Some such cultures have been mighty – Caesar's Rome, the Maya, and the Aztecs. Others have been more modest – the Ona, the Yahgan, the Tasmanian. The problem explored by this article is to tease out any relationships between the role of the social father in a culture and the level of that culture's perpetuity or long term survival. There are two major routes to fatherlessness which will be analyzed in this context: father abrasion (divorce) and father preclusion (single parent births).¹

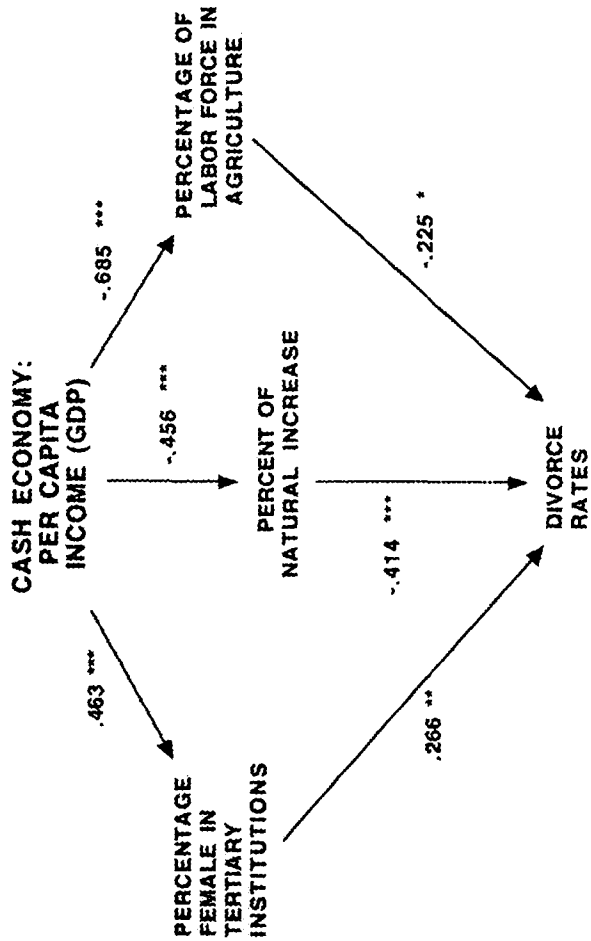
The key element to cultural continuity is "births". If births consistently outnumber deaths in a culture, then that culture will expand. If deaths consistently outnumber births, then that culture will be threatened with extinction, e.g. the Shakers who practiced celibacy. If births and deaths are essentially equal, then the population remains in numerical stasis.

The primary demographic index to be used here is the rate of natural increase (birth rates minus death rates). With close to the power of a definition, those cultures with consistently higher rates of natural increase will represent, over generations, proportionately larger segments of the referent population than those competing cultures which have persistently lower rates of natural increase. If the rates of natural increase should prove to be negative for a culture, then that culture is threatened with extinction. The extinction would be slower with a slightly negative index and faster with a larger negative index.

Divorce and Rates of Natural Increase

Divorce rates (number of divorces per 1000 population) from the United Nations and the annual percentage of natural increase were available by nation (United Nations, 1990, 1995; UNESCO, 1994). The data indicate that divorce rates are (negatively) related to the annual percent of natural increase. The correlation is fairly robust ($r_p = -.414$; $p < .001$ $n = 93$ nations). Approximately 17% ($.414^2 = .171 = 17.1\%$) of the differences in percentage of natural increase

¹ Minor sources of chronic separations of children from their fathers include jail, military duty, and widowhood (which was formerly the major source of fatherlessness).



* $p < .05$ (one-tailed); ** $p < .05$ (two-tailed); *** $p < .001$

$R = .441$; $p < .001$; $n = 83$; (adjusted) $R^2 = .195$

FIGURE 1. Relationships among the four independent variables and divorce rates

can be attributed to differences in divorce rates. Framed a little differently, as divorce rates become higher, rates of natural increase become lower, and, given the coarseness of using a nation as a unit of analysis with the increased risks of false negatives, the shifts are somewhat substantial.

Of course, neither divorce rates nor levels of natural increase occur in isolation, and additional variables would need to be assayed to flesh out a context. The following model was developed to give the divorce-&-natural increase relationship just such a context. The following data were gleaned from information provided by the United Nations (United Nations, 1990, 1995; UNESCO, 1994) and the CIA (*Worldmark Encyclopedia of Nations* 1995).

A number of authors have noted that, when a country develops a cash economy, workers are needed to man stores, factories, and businesses. If women are allowed access to those newly created jobs, they quickly integrate themselves into the paid labor force. For discussion and examples, see Bulatao, et al. (1983), Caldwell (1982), Day & Mackey (1986), Easterlin & Crimmins (1985), Fawcett (1983), Handwerker (1986), cf. Aghajanian (1977, 1988), Bradley (1984), Nag, White & Peet (1978), Ross & Harris (1987). In turn, formalized schooling is needed to train those workers in literacy and ciphering. Thus, the model would suggest that as an expanding cash economy (indexed by the gross domestic product's per capita income or GDP) gains momentum in a country, then (i) the percentage of the labor force engaged in subsistence agriculture would drop, (ii) birth rates would drop (and, as a consequence, rates of natural increase would drop [as long as death rates do not increase]), and (iii) the percentage of all students in tertiary education (beyond high school/secondary education) who were females would also increase. As Figure 1 illustrates, such is the case. (Note that all indices were not available for all countries, – hence the "n" varies per index).

Furthermore, as subsistence agriculture lessens in importance, divorce rates increase ($r_p = -.225$ $p < .05$; one-tailed, $n = 91$). As the percentage of female students, compared to male students, in institutions of tertiary education increases, divorce rates also increase ($r_p = .266$; $p < .05$; two-tailed, $n = 73$). The combined effect upon divorce rates of the three variables (natural increase, percentage female tertiary students, and the percentage of the labor force in agriculture) was significant ($R = .441$; $p < .001$; $n = 83$) and

accounted for approximately 20% (R^2 [adjusted] = 19.5%) of the variance in divorce rates. See Figure 1. (Of interest, GDP per capita income itself is not significantly related to divorce rates [$r_p = .201$; $.1 > p > .05$; $n = 91$]). See Appendix I for additional combinations of multivariate correlation coefficients.

From these data, the following argument is made. When women, within their own socio-cultural milieu, can expand their status-role complexes beyond that of motherhood, they will do so. If the women can enter into the paid labor force and earn a salary, they will do so. If any formal training beyond the secondary level (high school) facilitates or enhances the women's marketability in the labor force, the women will increase their attendance in the appropriate institutions of higher learning. If alternative status-role complexes, other than motherhood, are adopted by women, then the number of births per woman decreases. Birth rates drop, and the annual percentage of natural increase also drops. If the traditional male role of breadwinner can now be performed by the woman herself or by the government, then the husband/father, if he proves unsatisfactory to the woman, can be jettisoned by divorce (if divorce is allowable in the country in question and if she is preemptively given child custody). It may be noted in passing that a cross-cultural analysis of divorce reveals that a failure to provide support or resources (food, clothing, & shelter) to the wife/mother by the husband/father was a socially sanctioned reason to divorce in 23 cultures. In none of these 23 was a similar failure toward the husband/father by the wife/mother a socially sanctioned reason to cause a divorce to occur (Betzig, 1989).

Europe versus the Moslem Swathe

Let's take two polar sub-samples and carry out the analysis just with the two subsamples. The two sub-samples are Europe ($n = 40$ countries) and a swathe of countries wherein Islam is the dominant religion starting from Mauritania and running eastward to Pakistan ($n = 25$ countries). These sub-samples abut each other around the Mediterranean Sea – the Moslem swathe to the south and Europe to the north. Any genetic differences of these peoples is probably minimal, but the cultural differences are manifest.

For example, the Moslem swathe – compared to the European nations – had (i) a higher level of natural increase, (ii) a lower GDP per capita income, (iii) a higher percentage of the labor force

TABLE 1.

Highest (top 10) and lowest (bottom 10) fertility rates (mean number of children per woman) by country and geographical area (Smith-Morris, 1990; United Nations, 1990).

<u>Highest fertility:</u>				<u>Lowest fertility:</u>			
Rank	Country	Fertility	Area	Rank	Country	Fertility	Area
1	Rwanda	8.29	Africa	1	West Germany	1.38	Europe
2	Kenya	8.12	Africa	2	Denmark	1.45	Europe
3	Cote d'Ivoire	7.41	Africa		Netherlands	1.45	Europe
4	Zambia	7.20	Africa		Italy	1.45	Europe
5	Oman	7.17	Asia		Luxembourg	1.45	Europe
	Saudi Arabia	7.17	Asia	6	Austria	1.50	Europe
	Jordan	7.17	Asia	7	Switzerland	1.55	Europe
8	Niger	7.10	Africa		Belgium	1.55	Europe
	Tanzania	7.10	Africa	9	Finland	1.65	Europe
10	Nigeria	7.00	Africa		Sweden	1.65	Europe
Mean		7.37				1.51	
s		0.45				0.09	

engaged in agriculture, and (iv) a lower percentage of female (rather than male) students enrolled in institutions of tertiary education. See Table 1.

It seems self-evident that those biocultural formulae which consistently generate higher levels of natural increase will displace or replace those biocultural formulae with lower levels of natural increase. Given that the current Moslem swathe formula has an inherent and robust advantage over the Europe formula, the expectation would be that – across generations – the Moslem swathe formula is positioned to displace or to replace that found in Europe. It may be noted here that the fertility level of virtually all the countries of Europe is below replacement level (2100 births per 1000 women).

The Drive-Wheel

The argument presented here argues that, for both the overall sample and the two sub-samples of Europe and the Moslem swathe, the key variable is the amount of latitude that women have in sculpting their own life-style trajectories. If women are more restricted to the mother status-role complex, birth rates tend to be higher. If women have greater options beyond the mother status-role complex, then birth rates will be attenuated. Thus, if a cash economy is established, wherein formal training is a pre-condition for employment, then women, if not proscribed by law or tradition, will enter that economy. To the extent that a woman's position as employee or entrepreneur conflicts with motherhood, the greater the pressures for her to reduce the number of children she will conceive, bear, and raise.

Independence and Divorce

Not only does employment within a cash economy enhance the woman's financial freedom, but the data suggest that its consequences offer her an extra ply of conjugal freedom. That is, if she is not accruing sufficient satisfaction with her current marital situation, then she has the added opportunity to dissolve her union and to re-direct her life's trajectory in a direction that is more aligned with her wishes. Divorce statistics from the U.S. (Chadwick & Heaton 1992, Fox & Kelly 1995, Mackey 1993, National Center for Health Statistics 1989, Sack 1987, Sitarz 1990), Great Britain (Buckle, Gallup, & Rodd 1996,

Dennis 1992), Canada (Peters 1979), New Zealand (Sullivan & Allen 1996), and China (Beijing Review 1995, Hong & Ning 1992) suggest that, (i) if divorce can be efficiently initiated by the woman (ii) during her child-bearing years, and (iii) the mother nominally retains custody of the minor children, then petitioners for divorce are dominated by the wives rather than by the husbands. Divorce and cultural evolution

Thus, within the short term – i.e. within a single generation – as life-style options are increased for women, (i) divorce increases and (ii) the rate of natural increase is lowered. Consequently, across generations, an interesting dynamic would occur. Namely, those cultures with more expanded options for women would be under systematic pressures to be displaced or replaced by cultures which constricted women's life-time experiences toward those of motherhood.

For example, the countries of the Moslem swathe are generally considered to be highly patriarchal with women precluded from positions of economic or political power and from a wide spectrum of occupations. Authors, including feminist ideologues, who have written ethnographic accounts of the relevant Moslem countries invariably refer to the strongly patriarchal character of the political and economic structures. The question is never "IS the country patriarchal?" The ethnographic accounts revolve around how the patriarchy developed and how is it maintained. For example, Ahmed (1992) writes "The subordination of women in the ancient Middle East appears to have become institutionalized with the rise of urban societies and with the rise of the archaic state in particular..." and, as Islam crystallized its theology, "Implicit in this new order was the male right to control women and to interdict their interactions with other men. Thus the ground was prepared for the closures that would follow." See Kadioglu (1994) for a parallel argument for women's role in Turkey. Toubia (1988, pp. 2-3) makes the case quite clearly: "Arab women are dominated by men in every area of life in the patriarchal family system: state, political party, trade union and public and private institutions of all types." She notes that over 97% (97.2%) of the Yemeni women, as late as 1975, were illiterate. Badran (1995, p. 5) notes that "the woman was perceived as essentially or exclusively, a sexual being, unlike the man who was only partly understood in terms of his sexuality". Gerami (1996, p. 157) views the current version of Islamic fundamentalism as "...nipping a very young feminist

movement in the bud and under the banner of nature's mandate, pushed women further into the family. They managed to cast woman's individualistic identity as a perversion of her nature plotted by Western imperialists". Obermeyer (1995, p. 370) observes that the "Islamic emphasis on complementarity rather than equality in gender roles" makes dialogue with a worldview predicated on equality rather than complementarity extremely difficult. Inhorn writes that: "in a society (Egypt) where the patriarchal fertility mandate is emphatic, the social and psychological consequences of 'missing motherhood' - of being a woman unable to deliver a child for her husband, family, affines, community, faith, nation, and not inconsequentially her - are nothing if not profound". It is germane to this argument that, in general, Moslem men can initiate divorce far more easily than the Moslem women. The Koran gives some theological basis for this asymmetry, and local interpretations have intensified the gender differences (Ansari 1973, Hekmat 1997, Kamali 1984). For reviews of the literature, see A[-Qazzaz (1977), Meghdessian, (1980), Mernisse (1991), Raccagni (1978), and Tucker (1993). For theoretical overviews, see Lerner (1986) and Walby (1990).

A survey of women legislators found that women in the 14 Moslem nations, which were included in the survey, averaged less than 4% (3.2%, s.d. = 3.5%) of the legislators. This figure is contrasted to the average of women legislators of 17.0% (s.d. = 10.9%) in the European nations [$t = 20.738$; $p < .001$; $df = 37$] (Nelson & Chowdbury 1994, Sivard 1995).

These Moslem countries have a rate of natural increase (mean = 3.0% per year) over seven times that of the European countries (mean = 0.4% per year). And it is the European countries which, in the main, have been in the forefront of advocating gender egalitarianism. Hence, compared to those of Europe, the bio-cultural packages representing the countries in the Moslem swathe will increase their proportion of the area's population in each of the succeeding generations during which the disparity persists. Framed a little differently, not only will comparatively more children be born within the confines of the Moslem swathe, but their worldview and their mores & folkways which eventuated in their increased proportions will similarly be increased within the area's cultures. Specifically and ironically, the social constriction of women's roles to that of motherhood will be expanded demographically.

On the other side of the coin, compared to those of the Moslem swathe, the biocultural packages representing the countries of Europe will decrease their proportion of the area's population in each of the succeeding generation during which the disparity persists. That is, the extremely low fertility levels will result in European children representing an ever smaller proportion of the area's children. And the cultural value of gender egalitarianism - which helped to facilitate the lowered fertility levels - will be shared by a perpetually shrinking proportion of the countries in the Circum-Mediterranean region. The demographic advantage which is currently being accrued to the Moslem swathe would be shared with any other cultures around the world which parallel the Moslem swathe's delineation of women's roles. The demographic disadvantage accrued to the European nations would also be shared with any other groups around the world which parallel the European cultural mosaic.

Emigration and Immigration

In an example of cultural diffusion, emigrants tend to flow from high fertility, lower income areas to low fertility, higher income areas. In the context of this article, emigrants from the Moslem swathe tend to gravitate toward (Western) European nations. When they enter and settle into their new homeland, they, of course, bring with them the world-views, expectations, and traditions which had successfully led to their own socialization. This cultural package includes an anticipation of relatively high fertility. For example, Turkish immigrants into Austria average 4.43 children per woman. This figure is more than twice the figure for Austrian nationals (1.64 children per woman). Moroccan immigrants into Belgium average 5.7 children and Turkish women average 5.0 children. Both of these averages are more than three times the mean number of children per Belgium nationals (1.6). Pakistan immigrants into Great Britain average 5.3 children per woman. This figure is more than triple the figure for Great Britain's average of 1.7. French nationals average 1.82 children per woman which is less than half of immigrants from Algeria (4.24), Morocco (4.47), Tunisia (4.67), and Turkey (4.55). German woman average about 1.3 children each whereas Turkish immigrants average more than twice that number (2.9 children). Dutch women average 1.6 children, but Turkish women who emigrate to the Netherlands average 3.1 children and Moroccan emigrants average 4.7 children.

Finally, Swedish women average 2.1 children, but Turkish emigrants average 3.45 children (Coleman, 1994). See White (1997) and see Morris (1997) for discussion. Thus, each of the two demographic profiles (Europe and the Moslem swathe) is not isolated from the other, but illustrate a dynamic wherein cultural mosaics with higher fertility will displace or replace cultural mosaics with lower fertility.

The German example is illustrative here. From 1960 to 1990, the proportion of births in which at least one of the parents was non-German increased eightfold (from 2% to 16.9%) (Statistisches Bundesamt, 1992).² In addition, when fertility rates, as measured by children ever born (live) per thousand women, are used as the index, a similar picture emerges. In 1970, the fertility rate was 2010 lifetime births per 1000 German women and 2176 for non-German women. That is, the rate was about 8% higher for non-German women. By 1990, the rate for German women dropped to 1420 lifetime births. The rate for non-German women had dropped to 1900 lifetime births; yet was nearly a third higher than that of German women (Statistisches Bundesamt, 1992). Thus, even though native Germans are reproducing below replacement value, the land is not becoming empty, non-Germans are more than willing and able to move and to take up the slack. (See Coleman [1994] for similar examples from other European countries and see Morris (1997) for further examples and analysis). In terms of overall population growth in Germany, a hefty 128% of Germany's growth is due to immigration (Martin & Widgren, 1996).

Conversely, European migration to the Moslem swathe is meager to non-existent. Therefore, demographic, empirical evidence does become available to illustrate the trajectory of cultural evolution. The cultural mosaic of the father-&- mother-&-child(ren) triadic

² In 1960, 92.50% of the births in Germany were of German parents (another 6.3% of the children were born to single mother Germans). Two percent of the children were born to parents involving at least one non-German (0.1%, a German father & a non-German mother, 0.7% a German mother & a non-German father, and 1.2% to non-German mothers [either a single parent or with a non-German father]). By 1990, the percentage of births to two German parents dropped to 73.5% (another 9.5% were born to single German mothers). By 1990, the percentage of births involving at least one non-German rose to 1.69% (2.2% a German father & a non-German mother, 2.8% a German mother & a non-German father, and 11.9% to non-German mothers [either a single parent birth or with a non-German father]) (Statistisches Bundesamt 1992).

family – with the women restricted to the status-role complex of motherhood – is structured to systematically replace or displace a cultural mosaic wherein the father is optional or supernumerary and gender egalitarianism is extant.

Two U.S. Examples

Shifting the focus from the Circum-Mediterranean region to the U.S., two examples from the U.S. help make a similar analytical point that expanded woman's roles and fertility operate at loggerheads. The first example is from a highly profiled, if more rarefied, sample with all the attendant problems in such sampling. The second sample is less stark, but has more generalizability.

Men and Women from Who's Who

The inclusion of an individual in *Who's Who* (*Who's Who*, 1997) generally reflects a consistent level of high achievement on the part of that individual.³ Accordingly, a sample of men who were listed in *Who's Who* was surveyed by number of children they (and their wife or wives) had reared. A second sample was surveyed of women who were listed in WW by the number of children they (and their husband or husbands) had reared. The first 25 names of men and the first 25 names of women were surveyed for each letter of the alphabet (with the exception of "X". The individuals in the U.S. with a surname beginning with "X" are either rare or underachieving). A total of 628 men were surveyed. A total of 630 women were surveyed. The results are presented below.

Men in *Who's Who* The mean number of children per man in WW was 2.156 (s.d. 1.548). The mean number of children per father ($n = 504$) was 2.687 (s.d. = 1.205). Nearly 20% (19.7%) of the men were childless.

Women in Who's Who

The mean number of children per woman in *Who's Who* was 1.254 (s.d. = 1.374). This figure was less than the similar figure for men ($t [2144] = 10.920$, $p < .001$). The mean number of children per

³ *Who's Who*, in the main, represents achieved status vis-a-vis *The Social Register* which, in the main, represents the ascribed status of the entries' families.

mother ($n = 362$) was 2.180 (s.d. = 1.154) and was lower than the mean number of children per father ($t = 6.252$ [2142], $p < .001$). Over 40% (42.5%) of the women were childless. This number was higher than that of the men's ($z = 8.733$; $p < .001$). The mean age of women in Who's Who was in excess of 50 years; thereby indicating that their child-bearing was essentially completed.

Synopsis of Who's Who Data

Thus, not only were (all) women in Who's Who below the replacement value of 2100 children per 1000 women, they were also below the (all) men's level. Given the very high level of childlessness in the women's Who's Who, these results are not unexpected. However, when the fertility level of (only) mothers is compared to that of (only) fathers, the mothers in Who's Who - although above replacement level - were still substantially below that of fathers. Therefore, women in Who's Who who did become mothers were still yielding a fertility rate below that of women-&-mothers who married men in Who's Who. Framed a little differently, high achieving women are operating at a lower fertility level than are high achieving men, i.e. a matrilineage of high achieving women would be extremely difficult to maintain in the current U.S.

Fertility and Education

As has been well documented in numerous outlets, there is an inverse relationship in the U.S. between level of formal education and fertility and this inverse relationship is neither new nor unique.⁴ Of special interest here is the gap between being a high school graduate (a status which most U.S. women attain) and those women who attend at least one year of graduate school (a status only a minority of women would attain). The high school graduates have approximately twice the number of actualized births and a comparable number of potential or expected births in the future. See Table 2. Even if all the planned births of the female graduate students occurred, their fertility rate would still be well below replacement value. See Table 2. See Smock (1981) for similar data from addit-

⁴ Because of low death rates across all the educational levels, fertility rates can be effectively, if not identically, equated with rates of natural increase.

TABLE 2.

Birth expectations of women by educational attainment in 1982 (from Bianchi & Spain 1986) and 1992 (U.S. Bureau of the Census, 1995).

Year/Age and years of School completed	Births to date	Percentage expecting no births
1982		
Total, Ages 18 - 34 years	1.1	11.6%
Not high school graduate	1.7	8.7%
High school, 4 years	1.2	10.3%
College, 1 to 3 years	0.8	13.1%
College, 4 years	0.6	15.7%
College, 5 years or more	0.6	18.7%
1992		
Total, Ages 18 - 34 years	1.1	9.3%
Not a high school graduate	1.8	7.6%
High school, 4 years	1.3	9.0%
College, 1 to 3 years	0.8	10.0%
College, 4 years	0.7	10.3%
College, 5 years or more	0.6	12.0%

ional countries.

Synopsis

Thus, from both U.S. samples, the same interpretation becomes available: as high achieving women expand their options beyond the mother status-role complex, their fertility rates fall and fall below replacement value. No intact group can sustain itself if its rate of natural increase is negative. This pattern parallels the European pattern. To wit: when options are increased for women, the women avail themselves of those enhanced options and, to the extent that alternative roles are incompatible with that of the multiparous mother, birth rates drop (see Brown [1970] and Murdock & Provost [1973] for cross-cultural examples and discussion).

Furthermore, based on the European model, U.S. divorce rates would be expected to be higher than the world's sample, and such is the case. The mean for the world's sample ($n = 93$) of divorce rates was 1.58 (s.d. = 1.23), the U.S. divorce rates was 4.75: over double the world's average. In addition, U.S. mothers - rather than fathers - (i) dominate the petitioning for divorce (see Table 3) and (ii) tend to retain custody (both *de jure* and *de facto* of minor children (Chadwick & Heaton 1992, Fox & Kelly 1995, Mackey 1993, National Center for Health Statistics 1989; Sack 1987, Sitarz 1990).

DISCUSSION

The thesis being argued here is that cultures which keep the nuclear family intact have a long term advantage when compared to those cultures which allow the biological/social father to be abraded or jettisoned at the discretion of the wife/mother. The prototypic comparison is between the countries of Europe and those of the Moslem swathe. Europe has high divorce and high independence of its women and a very low birth rate. Again, the fertility rate of virtually all of contemporary Europe is below replacement value. As a matter of contrast, the Moslem swathe is intensely patriarchal, with low independence for its women and has a comparatively high fertility rate. The bio-cultural packages found in Europe are under systematic pressures to be displaced or replaced by those bio-cultural packages found in the Moslem swathe. And, indeed, as numerous authors have pointed out, migration from the Moslem swathe into Europe is real

TABLE 3.
Percentage of divorces by number of children and by status of petitioner: 1982-1986 (Mean number of divorces = 573.931)(National Center for Health Statistics 1989, 1996).

Number of children	Status of petitioner:		Ratio of		Status of petitioner:	
	Husband	Wife	Other	Total	Wife to husband	Husband Wife
None	35.5%	55.9%	8.6%	100.0%	1.6	52.6% 42.7%
sd	0.3%	0.9%	0.6%			0.9% 0.1%
One	27.8%	64.8%	7.4%	100.0%	2.3	22.7% 27.3%
sd	0.5%	1.0%	0.5%			0.2% 0.1%
Two	27.6%	64.7%	7.7%	100.0%	2.3	17.5% 21.1%
sd	0.7%	0.7%	0.6%			0.4% 0.9%
Three or more	27.4%	65.7%	7.9%	100.0%	2.4	7.2% 8.9%
sd	0.7%	0.8%	0.6%			0.3% 0.3%
All numbers	31.3%	60.2%	8.5%	100.0%	1.9	100.0% 100.0%
sd	0.4%	0.8%	0.5%			

and substantial. Once these immigrants have ensconced themselves within their new homelands, they tend to maintain a higher birth rate than that of the native European inhabitants (Coleman, 1994). Accordingly, two forces acting upon the Moslem immigrants are in play: the inertia of cultural diffusion versus cultural assimilation. The relative potency of each force in determining the immigrants' rates of natural increase is an interesting dynamic to follow across generations.

Out-of-Wedlock Births and Rates of Natural Increase

Whereas rates of divorce (father removal) lend themselves to a patterned integration into larger cultural contexts, rates of out-of-wedlock births (father preclusion) are more elusive in understanding how they meld into an overall cultural mosaic. Part of the dilemma is the restricted number of countries which record or make public such data. Such information was available from only 52 countries, and approximately half ($n = 24$) of these were from Europe. Nonetheless, when this truncated sub-sample of 52 is analyzed, no relationship is found between percentage of out-of-wedlock births (percentage of all live births which were out-of-wedlock),⁵ and (i) divorce rates, (ii) GDP per capita income, (iii) percentage of the labor force engaged in agriculture, and (iv) the percentage of tertiary students who were female. A tenuous relationship was found between percentage of out-of-wedlock births and rate of natural increase ($r_p = .281$; $p < .05$, one tailed; $n = 52$), and this relationship was positive, rather than the expected negative. The relationship between rates of divorce and percentage of out-of-wedlock births resoundingly reflected independence ($r_p = .004$, n.s.; $n = 47$). When the combined impact of the four independent variables (GDP, percentage of labor force in agriculture, rate of natural increase, and percentage of female tertiary students) upon the dependent variable (percentage of out-of-wedlock births) is analyzed, the results indicate independence ($R = .373$; $p > .15$; $n = 47$).

⁵ The United Nations defines "illegitimacy" in the following manner: "Legitimate refers to persons born of parents who were married at the time of birth in accordance with the laws of the country or area. Illegitimate refers to children of parents, who, according to national law, were not married at the time of birth, regardless of whether these children have been recognized or legitimized after birth." (United Nations, 1992).

However, when the analysis was focused only upon the European nations ($n = 24$), a more coherent pattern emerged. Rates of divorce and percentage of out-of-wedlock births were marginally related ($r_p < .05$; one-tailed). And when the other four births were used in concert, their relationship with the percentage of out-of-wedlock births was significant ($R = .811$; $p < .001$; $n = 24$). Over half (R^2 [adjusted] = .585 = 58.5%) of the variance in the percentage of out-of-wedlock births could be accounted for by the four variables. If divorce rates are included as a fifth independent variable, then, for the nations which had data for all the indices, the correlation coefficient (R) is essentially unchanged ($R = .812$; $p < .01$ - 2-tailed, $n = 22$) with over half (R^2 [adjusted] = .553 = 55.3%) of the variance in percentage of out-of wedlock births accounted for.

Again, keeping the frame of reference only to Europe, the interpretation of the genesis of increasing percentages of out-of-wedlock births (father preclusion) parallels that of divorce (father abrasion). As women have fewer children, and either the government or their own initiatives can generate resources for themselves and their child(ren), the women simply by-pass the role of social father as they enter into motherhood.

The lack of consonance between Europe and the other nations which had statistics on illegitimacy is intriguing. Europe could be a harbinger of trends which would be paralleled by other nations as they increase opportunities for women and switch from a more agrarian economy to one more oriented toward service & manufacturing. On the other hand, Europe may simply prove to be a unique cultural amalgam of ecology and history, and its cultural pathways would offer no predictability when applied to alternative cultures. Additional data from non-European nations plus an extended time horizon will help answer the query.

Conclusion

It seems to be a logical imperative that those intact groups with greater rates of natural increase – the gap between birth rates and death rates – will systematically replace or displace those intact groups with lesser rates of natural increase. The replacement or displacement would be slower if the differential gap is small and would be quicker if the differential gap is large. In either case, as long as one rate of natural increase remains larger than an alternative

rate, the group with the larger rate has a demographic advantage in terms of cultural evolution. Even though each current citizen of the planet is guaranteed to have ancestors, no one citizen is similarly guaranteed to have descendants. Those biocultural packages which comprise and define each intact social group must have histories, but are not similarly guaranteed perpetual futures.

The cross-cultural data suggest that two facets of a cultural mosaic have more staying power when compared to alternatives. First, cultures which restrict women's roles to motherhood tend to have higher levels of natural increase than do cultures which expand women's roles over and beyond that of motherhood. Second, cultures which adhere biological & social fathers to the mother-child dyad also have a demographic advantage when compared to cultures which positively sanction divorce and/or out-of-wedlock births. The comparison of European countries with those of a Moslem swathe clearly profiles the dynamics of how a cultural formula which emphasizes (i) expanded women's roles and (ii) problematic fatherhood is at a clear demographic disadvantage when compared to a cultural formula which (i) constricts women's roles to that of motherhood and (ii) has on-going fatherhood as a given.

Thus, without commenting upon desirability, the gains of women in the occupational, political, and economic spheres appear to be short-lived. And that, unless a new social contract is forged, a patriarchal form of cultural organization – forged around the traditional nuclear family – will remain predominant.

APPENDIX I.

Additional relationships among the four independent variables (Gross domestic product per capita income, percentage of tertiary students who are female, annual percentage of natural increase, and percentage of the labor force which is engaged in agriculture) and the dependent variable (divorce rates).

Combination of independent variables (n)	Dependent variable	R
(Percentage of women in tertiary education) x (% natural increase)/ (n = 85)	Divorce rates	.451 **
(Per capita GDP) x (% natural increase)/ (n = 91)	Divorce rates	.407 **
(Percentage of labor force in agriculture) x (% natural increase)/ (n = 91)	Divorce rates	.423 **
(Percentage of women in tertiary education) x (Per capita GDP) x (Percentage of labor force in agriculture) x (% natural increase)/ (n = 82)	Divorce rates	.445 *

* $p < .01$; 2-tailed; ** $p < .001$.

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Man Between Past and Future

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Migration as an Economic and Political Weapon

J. W. Jamieson

Washington D.C.

In light of the ongoing Third World population explosion, there is a growing likelihood that emigration from the more overcrowded countries of the Third World to the more prosperous – albeit often equally-overcrowded – countries of the developed world will be encouraged by governments seeking to alleviate economic woes arising from inordinately high fecundity.

Key Words: Migration, world population explosion, globalization, Third World, Malthus, World Bank, World Health Organization

In the year 1890, the British geographer Ernest George Ravenstein gave a lecture in Leeds, England, which was published shortly thereafter in the Proceedings of the Royal Geographical Society of Great Britain and Ireland. He made remarkably accurate calculations as to the possible increase in the world's population over the next sixty years, and warned, in Malthusian style, that despite possible scientific improvements in food production, a time would come when the earth could no longer support the vast numbers of people being born each day.

Early Demographic Projections

Thus, according to Ravenstein, the world population would increase from some 1.75 billion in 1890, to 2.3 billion in 1950. In this he was very close to the mark, as the actual 1950 figure was around 2.5 billion; but thereafter his estimates fell hopelessly short. Ravenstein could not conceive of the impact that modern medicine and the World Health Organization would have on the child mortality rate in the tropical and semi-tropical regions of the world – a drastic lowering of the death rate which unleashed the contemporary explosion in the population of the Third World. From the earliest of times, the high birth rate of mankind in pre-industrial societies had been balanced by a high infant mortality rate, but since 1950 the world population has increased from 2.5 billion, to 4 billion in 1976, and to 6 billion in late 1999. It is expected to be 8.5 billion by 2025. The World Bank believes it will eventually stabilize at between 10 and