Changes in women's lives and voices are both cause and effect of larger economic, social, and political processes. Women today live longer, have fewer children, are more likely to be literate; they are also likely to have some control over fertility, to work outside the home during part of their life, and to have political and legal rights more often than at any previous time in history. These shifts in social, demographic, and political conditions are linked to massive economic changes. The growth in the quality of human capital is a major contribution to economic development. Within constraints on women's ability to invest in land and physical capital, women have rationally invested in the quality of human capital through having fewer children and shaping the quality of their families' lives. Women have a stronger tendency than men to prefer child quality to quantity. Evidence for this position comes from findings on women's fertility preferences and the links between women's education and quality indicators such as child mortality and child education. The hidden role of women in creating the shift from quantity to quality in human capital is a major factor in liberating succeeding generations of women. The hidden women's movements created the conditions for succeeding public women's movements. The well-being of women, families, and nations can be served through supporting women's education and reproductive health care in developing countries and attending to the need for harmony between work and family obligations in developed countries. (KB)
THE PRIVATE REVOLUTION:
WOMEN, THE FAMILY AND HUMAN CAPITAL

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Of all things on earth, people are the most precious.
Nadis Sadik, Cairo, 1994

Over the past twenty years, during a series of United Nations Conferences, the women of the world have found each other, found the issues and found their voice. Once and for all they have answered the question:

"What do women want?"

The answer: "

Full and equal partnership with men in all aspects of society".

Women, utilizing the various conference documents and the UN Convention on the Elimination of Discrimination Against Women, have created an explosion of public policy activity in both civil society and government institutions. Large institutions such as UN agencies, foundations, businesses and national governments, confronted by inside and outside pressures, are beginning to address women's work and women's needs in more integrated ways within their planning and their programs.

Non-governmental organizations are running hundreds of programs, delivering credit, health care and family planning, technical training and resources. More importantly, they are organizing women to work on their own behalf. Lawyers are working to change legal codes, and trying cases that change legal precedent. Women's caucuses have been created in most professional organizations and most major religious groups to assure voice for women's perspectives.

What is happening? Why now?

Why is it that, suddenly, after centuries of silence, there is this great burst of women's energy released in public settings throughout the world?

I would argue that we are part way through an enormous transformation in human history; that the changes in women's lives and voices are both cause and effect of larger processes at work in the world which affect everyone. Economically, socially and politically, the world is becoming smaller and more interdependent. Productivity is rising as technologies become more sophisticated, and environmental pressures escalate as the population explosion interacts with a worldwide revolution of rising expectations.
As half the human race, women are inevitably both agents and subjects of such change. I believe that there are really two types of international women's movements:

One type is public and social, happening in organizations and networks.

The other is a private and personal movement which is happening in families and intimate settings.

Each is having powerful, transformative effects on the world in general, and women in particular; effects which can only grow over the next century.

Consider for a moment, the enormous changes in people's life circumstances over the past hundred and fifty years. In 1845, ninety percent of the world's people lived in rural areas. Although industrialization was in its early stages in Europe and North America, large cities were few and most men were farmers, or tradesmen. With few exceptions, every woman was expected to become a wife and mother, and most spent their lives raising a family and managing a household. Many women also worked on the family farm or business, but relatively few were in the paid labor force. Because health care and sanitation were unreliable, and methods for controlling fertility were few and uncertain, birth rates and infant mortality rates were high, and many women died in childbirth. Primary education was limited for boys, and even more limited for girls, and higher education for women was just beginning. Women had little independent income, and, in most of the world, no right to control their own property. Legally, women were treated as minors. Male suffrage was limited to a few men in a few countries, and there was no country where women could vote.

Change in the world has been rapid but uneven. There are four times as many people in the world as there were in 1850. It is not that people are having more children; on the contrary, birth rates and death rates have both come down substantially. One major cause of the population explosion is that happy fact that both adults and children are living longer, 15 to 30 years longer than a century ago. Between 1950 and 1985 female life expectancy in the industrialized world has gone from 69 to 77 years, in the developing world it's gone from 44 to 62 years of age. In 1985, according to Sivard, the average girl in the developing world could expect to live 18 years longer than her mother's generation.

Deaths rates dropped first in Europe. According to Sivard (1985,) in 1850 the average infant mortality rate of fourteen European countries was 185 deaths pr 1000 live births. In 1950 it was 53, and by 1985 it was 15 pr 1000. Because, at independence, developing countries were able to draw upon the accumulated technology of vaccinations, sanitation and wonder drugs, death rate changes in the developing world, though later, have been faster. In 1950 the average infant mortality was 163; by 1985 it was 82 pr thousand. Figures for maternal mortality are not as readily available, but in Latin America, they show a drop from 20 pr 1000 births in 1950 to 12 pr thousand in 1985. Current estimates for southern Asia and Africa run as high as 65 maternal deaths pr thousand births. (UN, 1991)

Birth rates come down more slowly than deaths in most countries, which also contributes to the population explosion. Yet although change is still slow in sub-Saharan Africa and South Asia, in every region of the world, women have begun to reduce their fertility.
There is substantial variation among countries within each region, and in some, rates have fallen very rapidly. According to the UN (1991), between 1970 and 1990 the fertility rate fell:
- in Turkey from 5.6 births per woman to 3.6;
- in the United Arab Emirates from 6.8 to 4.8;
- in Colombia from 6.0 births to 3.6;
- in Thailand from 6.1 births to 2.6;
- in Indonesia from 5.6 births to 3.3.

There are an increasing number of countries in South America and Asia where the norm is now 2 or 3 children per couple, and in Western Europe, North America, Japan and Australia the average is now under two births per women, which is below replacement.

Because so much of women's time throughout history has been devoted to the reproduction and nurturing of the human race, changes in this sector have had more profound effects on women than men.

Over the past century, schooling has expanded tremendously, providing both girls and boys with more chance for education. Virtually every child in the industrialized world now receives a primary education, and most continue beyond. In the developing world, although their enrollment lags behind boys, nearly two thirds of the eligible girls are enrolled in primary school, and there are increasing numbers of countries where all children can expect to complete at least nine years of education. Arguments for girls education have been strengthened over the past decade by research which establishes very strong associations between girls' primary education and their adult patterns of lower fertility, lower infant mortality and better family nutrition.

Women's access to higher education has also greatly increased: on a worldwide basis, girls average between a third and a half of the students at the tertiary level.

Women are entering the paid labor force in increasing numbers, particularly as they are educated. Often this marks an intergenerational shift from a mother's unpaid work in agriculture or family business to a daughter's paid work in industry or services. Many paid jobs are in the cities, and there have been massive population shifts, as male and female workers, sometimes together, and sometimes separately, have moved in the hope of work. Because population is growing so rapidly, the demand for employment has been enormous, and national economies have struggled, with mixed success, to create jobs for all those who want them. When there are more workers than jobs, women are likely to face discrimination, to be hired when they can be paid less, or when they are seen to have desirable characteristics: nimble fingers, patience or docility. Nevertheless, whatever the reasons and whatever the terms, women are there, in the waged labor force, in increasing numbers.

There is now full male suffrage in the world, and there are fewer than ten countries which do not have female suffrage. Women still do not have full adult legal status in many countries, but there is steady, though uneven progress in enlarging their legal rights.

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In summary, women today live longer, have fewer children, and are more likely to be literate, to have some degree of control over their fertility, to work outside the home during part of their life, to have political and legal rights than at any previous time in the history of the world. This transformation in women's life circumstances is so great that we are having trouble grasping it.

How did it happen?

We know that these shifts in social, demographic and political conditions are linked to massive economic changes. The world is experiencing increasing complexity in the accumulation and investment of capital, the increasing specialization of labor, the expansion of world markets, and development of complex technology. At the same time, political arrangements and social institutions are also changing; democratization and the development of the civil society are the latest manifestations of this change.

There is a tendency to talk about these economic, political and social changes of the past 150 years, the industrial revolution, the demographic transition, as if they were disembodied forces, winds sweeping through the world, independent of human agency.

I want to discuss causality from a somewhat different perspective, that of neo-classical economic theory. Because neo-classical theory, for all it's faults, places individual decision makers at the center of these processes, I want to use it to argue for a major, though hidden, role for women's action in creating and sustaining these changes. The theory posits that people act rationally in choosing the good as they perceive it, given the opportunity structures they face. Both men and women choose, but even within the same society, the context of their choices may be rather different. Although choice may be limited, the process is dynamic, and over time, the cumulative effects of individual choices on the use of land, labor and capital change the context. Choices also change, in response to new situations.

When the process works well, the result is economic growth and development. For the world as a whole over the past century, this has been the case; the world's output of food, manufactured goods, and services has not only been able to keep pace with the growing population, but to more than double average production per capita. This is a remarkable achievement even though this growth in goods and incomes is unevenly distributed between and within countries, and indeed, within households.

Development economists are interested in the factors influencing such increased productivity, and are often also concerned with the interaction of growth and equitable distribution. Historically, much of their analysis focused on accumulation and investments in land and physical capital, such as factories, fertilizers, roads and bridges.

During the past fifty years, it's become increasingly clear that human beings themselves are becoming more productive, not just because they are working with better technology, but because they are
healthier, more energetic, and better educated. Because people live longer, they have more time to acquire skills when they are young and to practice them in life. This is no accident, but part and parcel of development.

Economists refer to this increasing depth of investment as an increase in the quality of human capital, and their models attribute 30-50% of the growth in productivity in the industrialized countries to increased investments in human capital. Their research has also established that poorer countries which devote more resources to human capital are developing more quickly and more equitably, all other things being equal, than those who invest less in their people. (World Bank, 1994). It is now possible to demonstrate mathematically that people are a major development resource, and that investments in people are a major contribution to development. In other words, the creativity of human beings is also a central cause of productivity increases.

Economists acknowledge that this growth in human capital is not a free good; Schultz (1982) says that the basic questions in the creation of human capital are:

"Who will bear the costs?,"
"Who will reap the benefits?"

Clearly, there are both public costs, born by the society at large, and private costs, borne by the family and the individual. Yet national accounts reflect only the public costs, the costs of schools, and public health systems, clean water and sanitation. They do not count the private costs: the physical costs of pregnancy and lactation, the family investments of time, money and other resources.

Yet as we have seen, all over the world families are responding to the hope of better opportunities for their children, by having fewer children and investing more deeply in the health and education of each. Upon reflection, it is obvious that to a substantial degree, improvements in human capital have been created within the family. Although there are great differences among societies, the worldwide shift toward fewer children and greater depth of investment in each one has reflected people's changing calculations of private costs and private benefits as contexts have changed.

For individuals, the costs and benefits of this shift to quality differ by gender. On some level, everyone understands that the effort has been executed primarily by women in their roles as mother and housewife. Yet scholarly discussions of causality do not often acknowledge women's agency in this change. I would argue that this effort, over the generations, has been the hidden, private women's movement which has made the public women's movement possible.

Feminist scholarship has made it very clear that societies often constrain women's choices so that there are few places other than the family for them to use their intelligence and energy. Over the past century a great deal of time and energy have been expended in freeing women from these constraints and widening their opportunities.
But we have been slow to give women credit for operating creatively within such constrained environments. Given the constraints to their own mobility, and their limited ability to invest in land and physical capital, women have invested in the quality of human capital. Such investments are often a rational choice for women, when their own well-being is dependent on the well-being of their family.

In some contexts, rationality has suggested not fewer children, but work toward better living conditions. Women have grown, stored, processed, and cooked food to feed their families and sold the surplus. They have domesticated animals and used their milk, their eggs, their meat. They have scrubbed and cleaned and laundered and cared for the sick in the interests of family health. They have woven and sewed and knitted, tanned hides and plucked feathers to keep their families clothed and warm. They have made pots, and mats and rugs, dances, and stories and songs.

Over the centuries, in a variety of ways, women have done the best they could, shaping their own lives and those of their families in situations of serious constraint. Increasingly, as some constraints are loosened, and opportunities appear, women are changing history by driving the shift toward deeper investments in fewer children. To a substantial degree, their efforts to improve the quality of human capital are also responsible for increasing national productivity and structural transformation.

Certainly both men and women have a propensity to invest in the survival and well-being of their children, and throughout history, both have done so. In societies throughout the world, men have contributed to family sustenance; they have farmed and hunted, worked in factories and businesses to provide support. In many societies they have a major role in family decisions about fertility, education and health care.

Although both sexes are responsible for private investments in human capital, I would argue that women have a stronger tendency to prefer child quality to quantity in the production of human capital. Biology pushes women toward desiring fewer pregnancies for their own physical good, and whenever possible, they act on this preference. Because they bear greater initial risks and costs in pregnancy, childbirth, lactation, and have more responsibility for child care, this is an eminently rational position. Although in situations where family labor is valuable and child deaths are common, they may accept high fertility rates, whenever the context gives any hope of positive outcomes women struggle to:

- control their own fertility, when and with whom they become pregnant;
- reduce the physical risks of pregnancy and delivery by reducing the number of births and improving care of mother and child during the process;
- reduce reproductive wastage by improving the nutrition and care of existing infants and children. (No one wants to bear children who will die.);
- increase the level of resources invested in the well-being for their immediate family.
What is the evidence to support such a position?

1. Fertility. The Demographic and Health Surveys (DHS) which interviewed 360,000 women in 40 developing countries over a ten year period, document women's desire for about one less child than the observed fertility for that country. Women are clearly stating a preference for smaller families. (Bogardus, 1992)

2. The pattern of family investments in quality. The strong links between women's education and all the quality indicators demonstrates that the major change is inside women's heads. As women become educated, fertility goes down, child mortality goes down, family nutrition goes up, children's education goes up. These findings are among the most robust in the social science literature; they appear in large national-level studies and small, micro studies alike.

For example, the World Bank has done a series of country-level studies comparing girls primary enrollment rates in 1975 with desirable outcomes in 1985; higher male life expectancy, lower fertility and infant mortality rates, as well as growth in Gnp pr Capita. The chart below shows the scatter on a country-by-country basis, together with a regression line of best fit. For all four measures, at the national level, girl's education is strongly related to the desired outcomes.

When the finding on the impact of mother's education on family well-being first emerged in micro studies, one obvious explanation was that families who were better off were more likely to educate their daughters, and the daughters were more likely to marry prosperous men. The effect was from money, not education. There is certainly truth in this observation, and a number of studies have been undertaken to parse out the effects of education from other factors such as economic status. Poor families, living side by side in urban slums and rural villages were compared for years of mother's and father's education, fertility, infant mortality, children's nutritional status and health. These studies are summarized by Schultz, (1994) who noted that after controlling for many lifetime events and changes in socioeconomic status, mother's education still had a substantial effect. In Brazil, only a third of the effect of mother's education on child mortality could be explained by family income variables. He cites studies in Costa Rica, and several other Latin American countries, noting that an additional year of mother's schooling was associated with a 5-10% reduction in child mortality, while the effects of father's education was smaller.

The puzzle that remains is why a mother's education explains more of the variation in child mortality than do other variables such as access to health care, cost of health care, or even, amount of family money available for health care. (Schultz, 1994)

I would argue that the data can be read to say that as soon as women have any room for maneuver, they opt for quality.
The interaction of women's private and public roles

Such research illustrates the subtle intergenerational effects of girls' education. Women change the decision rules by which they allocate their time, attention and energy. In hundreds of small, nearly invisible changes in their behavior, mothers cumulatively effect the life chances of their sons and daughters.

It can be argued that the skills, the decisions and the unremunerated labor of women drive a shift toward quality in human capital. As constraints are released, as opportunities occur, in millions of personal and hidden decisions, women succeed in having fewer children, and caring better for the ones they have, nourishing and educating them as well as they can, scheming and saving to give them a better chance.

Beautifully, the shift to quality is a source of intergenerational empowerment for women. As fertility goes down, as life expectancy goes up, as families have more resources and fewer children, girls as well as boys receive more care, and the education of women gradually becomes more equal with men's. In a growing economy, the demand for skilled labor expands the options for women's time use. To a greater or lesser degree, this ability to work in the paid labor force brings women a more equal role in the household and the nation.

In the long run, the hidden role of women in creating this shift from quantity to quality in human capital is a major factor in the liberation of succeeding generations of their daughters and granddaughters. Many of us have been endowed by our foremothers in this way.

But it is not only a personal, family-by-family effect. We are now experiencing worldwide social and economic effects. This progression in women's lives from:

- a life expectancy of 40 years with 8 pregnancies
- to life expectancy of 60 years with 3-4 pregnancies
- to life expectancy of 80 years with 1-2 pregnancies

is underway more or less rapidly in many places. As it unfolds it leaves women with fifteen to thirty adult years free from major reproductive demands on their time.

As this enormous surge of women's productive time and energy is released into the world, it seeks outlets in paid labor, the civil society and government. This first, hidden women's movement continues to create the space and time for the succeeding, public women's movements. Women's increasing levels of disposable time and energy are pressing against and overflowing all boundaries, involving women not only in paid work outside the home, but in political organization and community work, in non-governmental organizations and personal friendships.

As a result, there is not one international women's movement, there are hundreds and thousands of them, addressing every major issue from every conceivable angle.

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For those of us at this conference, our efforts can best be directed to supporting women in their preference for quality investments in their families. In the developing countries, this means support for women's education, and their access to adequate reproductive health care, while in countries where these resources are secure, attention may shift to the need for harmonization of work and family obligations. Fortunately, the well-being of women, their families and their nation can all be served by such activity.

REFERENCES


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