

DO ECONOMISTS HAVE FREQUENT SEX?

Martha Campbell and Malcolm Potts

A flawed paradigm confusing coincidence with causation

Last year a member of the World Bank professional staff gave a lecture on development in Africa on the UC Berkeley campus. His audience asked him about rapid population growth in that continent. He immediately dismissed the question, saying that population growth did not need any special attention. It would look after itself. He was voicing an uncritical interpretation of the demographic transition, a “theory” which has as much evidence to support it as the fictitious Da Vinci Code, and like the Da Vinci Code it remains perennially popular.

In the mid-twentieth century, writers such as Frank Notestein and Kingsley Davis described how western societies had begun with high birth and death rates, that death rates fell before birthrates leading to a growth in population until a new equilibrium was reached where low death rates were matched by low birth rates. This classic description of the demographic transition is in textbooks and on UTube. As a set of general empirical observation it has some usefulness. However, when empirical observations are elevated to become a “model,” or a “theory” seemingly capable of providing an ‘explanation’ of demographic change then we have a serious problem. The explanation can become grievously misleading. When the demographic transition theory is used to “redirect future population growth”, then it becomes downright dangerous.

The theory has proved unusually persistent and remarkably impervious to criticism. Economists have mistakenly bought into the concept that when societies become richer and better educated – often referred to as socio-economic conditions - then fertility (the average number of children per woman) will decline. Careful studies of the theory in Europe have found only a weak relationship between socio-economic conditions and fertility decline. Reviewing the success of organized family planning programs in Asia and Latin America, Bongaarts and Watkins concluded, “there is no tight link between development indicators and fertility,” yet they still felt compelled to assert that “the role of socioeconomic development in accounting for fertility declines remains inherently plausible.”

It is almost as if the demographic transition model has some divine power that must never be questioned. A panel of the US National Academy of Science in 2000 concluded “fertility in countries that have not completed transition should eventually reach levels similar to those now observed in low fertility countries.” Editing a volume called *The End of World Population Growth in the 21st Century*, Wolfgang Lutz writes, “the well-founded, general notion of

demographic transition is the basis of our expectation that world population growth will come to an end during the second half of the 21st century.” Tim Dyson, in a 2010 book on *Population and development: the demographic transition*, sees the demographic transition playing a “central role of in the creation of the modern world,” asserting that the demographic transition is “self-contained and inexorable over the long run.”

But is this expectation well founded, and are the empirical processes actually “self-contained and inexorable”? Recognizing a serious problem in this thinking, Simon Szreter has commented, “the [demographic] model’s conceptual structure was allowed to become so general and the theoretical relation so flexible that, as a causal explanation of change, it became an empirically irrefutable theory.”

There is no empirical evidence that all countries and regions will drift in some magic way to a two child family and then live happily ever after. Indeed, anyone who has glimpsed the patriarchal cultures found in Afghanistan or Northern Nigeria would suggest the empirical evidence is the exact opposite. Such regions are likely to go on having large families unless a massive effort is put into helping women achieve the autonomy they deserve. A common assumption that “once fertility declines are underway they tend to continue” did not prove true in Kenya, where fertility decline was well under way in the 1980s but stalled after 1994 when foreign aid budgets for family planning collapsed. It was also assumed that when societies reach replacement level fertility then the birth rate would stop falling, but has not happened in Russia or most of Europe.

Another almost religious belief of disciples of the demographic transition is that the engine driving the transition is a fall in death rates. Some parts of this observation hold water, but as there is no place in the world where deaths have not fallen significantly (except, sadly, for maternal deaths in a number of countries) the assertion cannot be proved. In England and Wales the birth rate fell a generation *before* infant mortality fell. Infant mortality in Madagascar (42/1000 births) is slightly lower than that in Bangladesh (45/1000), but the total fertility rate (TFR) in Bangladesh 2.4 and in Madagascar 4.6. This reversal is most likely because Bangladesh has ready access to contraception and safe abortion, while Madagascar does not.

Access to modern contraception and safe abortion is often a more consistent correlate with fertility decline than socio-economic progress. By access we do not mean just that the contraceptives are in the community, but also that the many barriers between women and contraception, including unjustified rules and tests, misinformation, providers not allowing women without a husband to use contraception, and many more.

Family size can fall even in poor and illiterate communities once the many tangible and intangible barriers preventing women accessing the technologies and information they need to

separate sex from childbearing are removed. Such barriers are often visible to women, but sometimes not seen so distinctly by demographers, nor by ministries of health. Curiously these barriers seem to be largely invisible to a large portion of economists, including most economists in the World Bank.

Frequent sex

The demographic transition theory postulating a predictable, self-regulating world, where the whole world will have a two child family by 2100, is a mirage created by writers who see a world of people who are able to make easy decisions about whether and when to have a child. They seem not to recognize that human beings across societies worldwide, unlike most other mammals, have sex hundreds or even thousands of times more frequently than is necessary to conceive the number of pregnancies they want. Unless women have the knowledge and the means to separate sex from childbearing, their default condition is a large family. It is curious to us that economists seem not to know that there must be more things happening than just letting couples make decisions about their childbearing, especially the fact that couples commonly have intercourse frequently. In many countries where women live in the depths of poverty and have little access to contraception and not enough power to tell their husband “no sex tonight”, lest he might treat her roughly or take on another wife or girlfriend – and she and her children may well have less food. Oddly, economists often miss completely the realities of this sad situation, where women have few options about their childbearing. A couple of years ago we came to realize that most economists must not know that couples have sex frequently, across virtually all societies. We then began to propose to our students in jest that the only explanation we can think of for why economists seem not to be aware of this common pattern of frequent sex everywhere is that maybe economists don't have frequent sex.

The UN population projections have assumed since the spring of 2010 that all countries will reach replacement level by 2100. This is the Da Vinci Code at its worst. In parts of West Africa, Current observable rates of increase in the use of contraception means that it will take over 90 years for countries to reach replacement level fertility (just over 2 children on average). Even when replacement level fertility is achieved, the population will go on growing for another generation. Today 1.2 billion people live in the high fertility countries such as parts of Africa, Yemen and Afghanistan. The countries with the highest average family size, from four to seven or more children per women, account for 18% of the total global population. If that percentage continues to expand, which is likely as long as those averages of numbers of children continue, these countries will remain poor. No country has been seen to develop with an average of five or more children per mother. Even if the overly optimistic UN projections are achieved, these high fertility countries will grow to between 2.6 billion and a staggering 6.1 billion by 2100. Whatever the exact number – Unless there is a sense of urgency and significant investment by

the rich world – by the second half of the 21st century the overwhelming majority of people in the high fertility countries will still be living in abject poverty, largely uneducated, and almost certainly unemployed. Not only will it be necessary to make family planning readily accessible in the remaining high fertility countries, but also it will be imperative to invest heavily in girl's education. And without a large external investment in girls' education, many such countries are likely to continue to treat women in atrocious ways.

Currently, 12 million people in the high fertility countries of the Sahel are hungry. As the population of this ecologically vulnerable region doubles by 2050, and as the crops wither and the camels die as a result of global warming, tens of millions of people will migrate to big cities and across borders and in what could become the biggest forced migration in history. Other countries will become failed states, like Somalia (TFR 6.4). Terrorist groups like *boko haram* (literally "education is sacrilege") in Northern Nigeria will become more common and *al-Qaeda* will continue to metastasize, as it has in Mali.

Action now

The current population of Niger is 16 million and if that country reaches replacement level fertility (just over two children average) by 2040 the population would not stabilize until it reaches 80 million by about 2100. In a country where on one in five women has 10 or more children and only one in 1,000 girls completes secondary school any hope of socio-economic progress is being swept away by a tsunami of human numbers. If Niger delays reaching replacement until 2080 the country will not stop growing until it reaches over 220 million people. Obviously that would not happen because deaths from malnutrition, starvation and conflict would rise to unprecedented levels bringing with them an unimaginable intensity of human suffering.

Unless two and two no longer make four, there is a compelling and urgent need to make family planning universally accessible, and to invest heavily in girls' functional education. Family planning is a catalyst; it is the horse that pulled the development cart in Asia, and it is a prerequisite today for progress in African or countries like Afghanistan. Investing in girls and young women is always important, and it is particularly urgent in societies where the ongoing abuse of teenage marriage and early child bearing continues unabated. Strong family planning and education are synergistic, not competitive alternatives.

What the Programme of Action agreed at the 1994 International Conference on Population and Development actually said was an eloquent call for making family planning universally available, with or without socio-economic development.

“The success of population education and family planning programmes in a variety of settings demonstrates that informed individuals everywhere can and will act responsibly in the light of their own needs and those of their families and communities.”

In low resource settings family planning can be the first element of primary health to be made widely available. even health extension workers take many months to train because they must be able to diagnose diseases before they can recommend a therapy. Family planning is an individual woman’s voluntary choice and has been made widely available by training community volunteers for one or two days.

Lack of focus on family planning since the Cairo conference has allowed a great deal of demographic momentum to build up in many high fertility countries, as Niger makes so unambiguously obvious. Statements such as Lutz’s, “we demonstrate in this book that world population growth will likely come to an end in 21st century through the benign process of declining fertility rather than the disastrous process of increasing death rates by over shooting global carrying capacity” are highly misleading. It implies that global problems of tectonic significance will somehow take care of themselves. They will not.

As a collection of empirical observations, the demographic transition describes changes in birth and death rates leading to changes in the size of the total population - no more and no less. The demographic transition cannot be turned into what Dudley Kirk called in 1996, “one of the best generalizations in the social sciences.” As a paradigm, the demographic transition is like Karl Marx’s *Das Capital* or Sigmund Freud’s *Interpretation of Dreams* – an idea which seems to have the power to gather generations of faithful followers, who cheer for one another while systemically ignoring external criticisms. As more and more exceptions to the demographic transition theory have been documented, some demographers and economists have been left looking like pre-Copernican astronomers inventing increasing improbable explanations of a flawed geocentric system rather than accepting the fact that earth goes round the sun.

After 20 years of antagonism towards family planning, the London Summit on Family Planning (July 11, 2012), saw the tide turn in favor of renewed support for international family planning. The words demographic transition passed no one’s lips on that day. Instead this landmark event was based on two much more profound observations than a library full of demographic theses confusing coincidence with causation. They have been perfectly summed up by Melinda Gates: “The most transformative thing we can do is give women access to birth control.”

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