Where Are The Men?
Remarks of Alexander Sanger
The Rubin Museum
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The timing of this session is fortuitous because just this week the World Economic Forum released a report on "Women's Empowerment—Measuring the Global Gender Gap". In many areas the gap is wide if not abysmal. The report measured economic participation, economic advancement, political participation, educational participation and health status and wellbeing.

I am more accustomed to dealing with the issue, where are the women? In my world at Planned Parenthood, we are faced with over 500,000 women who die every year around the world from pregnancy-related causes, including 70,000 from botched abortions. We are faced with just half the women of the world having access to modern contraceptives and as a result with half the pregnancies on the planet, including in this country, being unintended. We are faced with the increasing feminization of the HIV epidemic, where half of the people living with HIV are women, and in sub-Saharan Africa it is 60% and rising. We are faced with the explosion in STDs around the planet and the medical fact that 70% of women with a STD are asymptomatic, whereas only 10% of men are, thereby making women less likely to be treated. We deal with sex bias against girls before, during and after birth. The sex ratios in China and India are heavily skewed towards the male child. The issues of male violence against women and lack of education, political and business opportunities for women are well known.

The health and rights issues of men are less well known, but they are there. I come to the issues of men with some biases and skepticism, but with increasing concern. The picture of male versus female health is a mixed one. There are few clear answers. We know that male behavior leads to deleterious health consequences for men and for women. I am convinced that we are not going to solve female health and rights issues, without addressing those of men too. Gender is an important lens with which we should view these problems, but it is not the only lens.

The question we have to answer for men is, What's in it for the men?

Male Support for Women's Issues

Let's start with males and reproduction, where there is a huge body of opinion in this country that reproduction is none of a man's business. What do males think about matters reproductive and why is this relevant to their behavior? Let's start with the United States, where I have spent a lot of time advancing when I can, and trying to hold the fort when I can't, reproductive freedom. Men and women used to support reproductive freedom, that is to say for polling purposes, abortion rights, equally. Alas, male support for reproductive freedom has been declining for the past decade. In the

original Gallup Polls on abortion, in the 1970's equal numbers of men and women supported unrestricted abortion rights: about 20-22%. The latest Gallup Poll showed a 9% gender gap---28% of females supported unrestricted abortion rights but only 19% of males did (the 2004 election gender gap was a similar 8%). By the way, more women than men supported a total ban on abortion 20% to 18%. The divergence started in 1990, after the *Webster* Supreme Court decision which gave the states more leeway to restrict abortion rights. The gap widened further after the 1993 *Casey* Supreme Court decision where the court permitted more state restrictions on abortion, except that the court did not permit a state to require a husband's notification prior to his wife's abortion. In a 1992 Washington Post poll a stunning 63% of Americans supported a wife needing her husband permission to get an abortion. In another 1992 poll on husband notification, 75% of men supported it, but so did 64% of women. These figures have not changed since.

There are other indicators that the American male is less supportive of women and women's issues. According to the Breakthrough Institute polls, in answer to the question, do you agree or not with the statement that "the father of the family is the master of the house?", in 1992 42% of American agreed and in 2004, 52% did, a 10 percentage point rise. In response to the same question, less than 1/3rd of Canadians agreed and only 1/5th of Europeans agreed. In the same Breakthrough Institute polls there is also increasing approval of violence as a normal way of solving problems.

In response to the question: Is violence is a normal part of life? The percent saying yes:

1992: 10 percent
1996: 18 percent
2000: 24 percent
2004: 20 percent (a drop off due to 9/11?)

In response to the question: Are men naturally superior to women? The percent saying yes:

1992: 30 percent
1996: 32 percent
2000: 38 percent
2004: 40 percent

Not all the respondents could be President of Harvard. It is interesting to note the same 10 percentage point rise in all questions from 1992 to 2004. It appears that the abortion gender gap has lagged behind the voting gender gap.

Why are men feeling the way they do on women's issues and on male dominance issues? What do American men have to complain about? Don't they run everything, behave irresponsibly, and have all the fun? Are these opinions the symbol of male decline? Do health and reproductive matters have anything to do with it?

Male/Female Health Comparison

We just got through a month of meetings at the UN on the status of women 10 years after the Cairo and Beijing Conferences where we took stock of the progress that women and girls have made since. For purposes of comparison, not because the UN thought anything in particular should be done about it, the "progress" of men was also tracked. The big three indices the UN tracks are life expectancy, educational level and reproductive health status.

Let's start with life expectancy. Women outlive men all over the world, even in those places which have that terrible rate of maternal mortality. The worldwide average is that women outlive men by 4.3 years. In the West the gap is 7.3 years, but in the least developed world the gap shrinks to 1.7 years. So with all the modern medicine, women benefit comparatively more than men and get more of an advantage in life span. Interesting, there are four countries on the planet where men outlive women: Pakistan and Nepal, due largely to discrimination against girls, and in Zambia and Zimbabwe, which has the greatest male advantage of 1.1 years (the life expectancies are 33 and 32 years respectively for males and females). Both are due to the feminization of the HIV epidemic, and, not coincidentally, Zimbabwe has the highest HIV prevalence rate in the world, with 21% of the males and 28.4% of the females being infected, and it has the highest ratio of HIV infection for women with over 60% of the HIV cases being female. While diseases behave differently in different environments, the common thread is lack of condoms which are opposed by the Roman Catholic Church and increasingly by our government with its AB and maybe sometimes C policy, ABC standing for abstinence, be faithful and condoms. One third of the new HIV money in our foreign aid program has to be allocated to abstinence, and now HIV programs have to condemn prostitution as a condition of getting funds. This is what happens when you mix one warped view of morality with public health.

The advancement of women's education is a huge part of the UN Millennium Development Goals. Though there is an education gender gap favoring males in poorer countries, the gap is rapidly shrinking. In Africa, there is near parity by the 5th grade in many countries, and females exceed males in 5th grade enrollment in countries like Rwanda, Tanzania and Botswana. In Asia, in secondary school gross enrollment, females exceed males in countries like Mongolia, Malaysia, the Philippines and Bangladesh, but lag behind males in countries like Cambodia, India, Saudi Arabia and Turkey. In the 17 nations of Latin America, in secondary school gross enrollment, female enrollment exceeds the male in every single country, except for three---Guatemala (2% gap), Bolivia (3%) and Peru (6%). The largest gender gaps are now the other way with 11 percentage points in Brazil and 13 in Uruguay in favor of girls. The tragedy in many countries is more the fact that many children of both sexes do not get primary or secondary education, not that females are so far behind.

The UN also measures reproductive health, the leading indicator being the infant mortality rate for those under age 5, and here we find a mixed picture also. Worldwide it is a tie—boys and girls under age 5 die at the same rate (81/1000), though in the least

developed countries more boys die than girls. In Africa, Latin America and much of Asia more boys die than girls, except that in China and South Asia, including India, more girls die than boys.

There are 5 million new HIV cases a year and 340 million new STD cases a year.

Male and female survival rates, rates of education, infant mortality rates are thus a mixed picture. But they have profound consequences for societies. Demography, broadly defined, may be destiny. And demography is, in many ways, the result of the interaction of males and females over time and their reproductive health. Generally speaking there is a direct connection between the contraceptive prevalence rate and the other indicators the UN measures—the higher the contraceptive prevalence, the lower the birth rate, the lower the infant mortality rate, the higher the female education rate and, depending on condom availability, the lower the HIV infection rate and the higher the life expectancy.

Premature Male Death

As to the first UN measure of male/female progress, life expectancy, men almost universally suffer from premature death. Is this just a factor of the male being the "weaker" sex? Is this a matter of genes or gender? Perhaps both. The single biggest risk factors for early death in developed countries are to be young and male. In the years between adolescence and adulthood, from ages 20 to 24, the rate of death for males is three times that of females. The differential persists into older ages. In the U.S., the death rate for men of age 50 is 60% higher than for women; at age 75 it is 46% higher. For deaths before age 50, for every 10 premature female deaths, there are 16 premature male deaths.

The highest differential male-female mortality ratio (other than suicide among older men) was for younger men ages 20-24 --- homicide (5.72) and non-automobile accidents (4.91). The reasons for these differentials, the study author speculated, "were as old as time. Males compete for status and resources to attract attention and partnership of women. The higher degree of mating competition among males is the evolutionary reason why females live longer on average in most animal species. Not all men get a partner and because of this, men are willing to take a higher degree of risk." Given that these differential result from a complex interaction of sex, behavior, environment and culture, there are no easy solutions. While 82% of men have their car checked regularly, only 50% of men see a doctor regularly. There were various recommendations made to reduce male premature death, including better diet, more exercise and less drinking. Interestingly, the presence of handguns made no difference since the male-female differential persisted in countries, like England and Sweden, that had few handguns.

Are men behaving recklessly to gain status, to get the girl? Do men really have to do this to mate and have children? In classic Darwinian theory, fewer males had children

than females, with the females going to the same preferred, high status (however defined) males to father their children. Can this be proven? We aren't in Kansas, but do we have to accept this? Well an interesting new study out of the University of Arizona which looked at X and Y chromosomes and their variations and mutations found that over time twice as many women as men have children; I repeat, twice as many women as men have children. Thus, if on average 80% of women have children, then only 40% of men do. We are not a monogamous species; we are slightly polygamous and have been throughout time. The most extreme example is Genghis Kahn, who it is estimated is the ancestor of 8% of the people now living in his former kingdom. Males have more variation in their reproductive success and thus they do compete, often violently and recklessly, for the honor.

The pattern over time has changed in modern times, in the U.S.A. anyway:

• Teenage women are more than twice as likely as teenage men to be involved in a pregnancy, and nearly three times as likely to become parents. This is in line with evolutionary prediction.

• Approximately 1/2 of all births involve men and women in their 20s, and the percentage of men and women involved in pregnancies each year is roughly equal at this stage in life (14% for men and 15% for women). However, women begin childbearing slightly earlier than men, with half of women having a child by age 26 and half of men by age 28.5. [17]

• In their 30s, women are more likely than men to have had children: 82% of women, compared with only 67% of men. By their 40s, this disparity virtually disappears: 85% of men and 87% of women have children. [18]

Given this pattern of premature male death, it is interesting to note that when the UN decides to tackle sex differentials in death, the title of the opening chapter of the monograph entitled, "Too Young to Die, Genes or Gender?" was "The Extent and Causes of Female Disadvantage in Mortality". In a sub-chapter entitled, "Towards a Definition of Female Mortality Disadvantage", the authors tried to distinguish between innate genetic factors on the one hand and behavioral and environmental factors on the other. One has to wonder whether any such division is possible, or useful. The assumption of the authors is that, since we can't alter genes or biology, maybe we should concentrate on gender bias that results in female disadvantage. The researchers admitted that girls were less likely than boys to suffer from undernutrition, and, in fact, that systematic neglect of girls in terms of diet and domestic care was uncommon. They also concluded that there was no differential in either sex receiving vaccinations, nor was there a general disparity in curative health care of boys and girls, though South Asia is a major exception, as we saw in the differential survival rates in Pakistan and Nepal.

Russia—A Case Study

Getting men and women to live longer is a complex problem. Russia where men have been living less long provides an interesting example of the interaction of genes, the environment and behavior. When we think of Russia, we tend first to think of the disastrous economy and the plunging birthrate, now as low as Italy's at 1.14 children per woman. We cannot ignore the huge decline in male mortality and morbidity in Russia. There are currently 170 deaths for every 100 live births in Russia--- the causes of this imbalance are both a decline in births and a skyrocketing death rate. The causes of the decline in births include involuntary infertility caused by botched surgical abortion and by an increase in sexually transmitted diseases. Reduced marriage is a factor: Russia has 3 divorces for every four marriages, a divorce rate higher than ours or Scandinavia's. Births out of wedlock are the same as the US, about 1/3rd. On the mortality front, over the past decades, the life expectancy fell 5 years for males and stayed about level for females, with cardiovascular disease, accidents and alcohol being the main culprits. The death rates due to violence for Russian women are higher than the death rates for European men. When a society collapses, men and women suffer.

There is a direct connection between a healthy population, a productive population and national GNP. A Russian 20 year old has a 46% chance of reaching age 65, compared with 79% chance for an American 20 year old. As Nicholas Eberstadt has said, how can Russia sustain an Irish standard of living when its population has an Indian rate of survival? What does this mean for the Russian military and for global security where Russia might be a stabilizing force as in the Far East? One suggestion I made was to introduce a lot more condoms and also medical abortion with RU-486 into Russia and thereby eliminate infertility due to botched abortion and STDs. I haven't heard back from our government.

WHO and DALYs

How should we approach public health disasters? How do we allocate resources? The WHO came up with a measure called DALYs, or disability adjusted life years. This measures shortened life span and productive span caused by disease. The ten leading risk factors globally are: underweight; unsafe sex; high blood pressure; tobacco consumption; alcohol consumption; unsafe water, sanitation and hygiene; iron deficiency; indoor smoke from solid fuels; high cholesterol; and obesity. Together, these account for more than one-third of all deaths worldwide.

The leading causes of DALYs are:

	All	Women 15-44
Communicable diseases	20%	
SRH	18%	32%
Neuro-psychiatric	13%	25%
Injuries	12%	
Respiratory illness	11%	
Cardiovascular	10%	

The SRH breakdown to total 18% is:

	All	Women 15-44
Childbirth illness including unsafe abortion	2%	13%
Perinatal, including low birth weight	7%	
HIV	6%	14%
Other SRH	3%	5%
	18%	32%

It is therefore appropriate to allocate public health effort towards women in an effort to reduce the SRH mortality and morbidity. HIV prevention efforts should be more equally allocated since it affects males and female equally.

The Pill, Condom Use and STDs

We should not delude ourselves that the patterns we see in Russia or the WHO data are irrelevant to our situation in the USA. While our infertility is half the Russian rate, it is still high in this country. Condoms are much more plentiful, but there is evidence that condom use declined precipitously after the introduction of the Pill in 1960 and has not caught up and as a result we have a large increase in sexually transmitted

diseases. Nonetheless, we have a far less SRH mortality and morbidity than the rest of the world.

Professor Andrea Tone of the Georgia Institute of Technology in her book, "Devices and Desires", cites the fact that in 1958 before the pill was introduced, "condoms were a $150 million business and the most frequently used contraceptive in the country. But the Pill displaced the condom, whose U.S. sales had plummeted to $85 million by 1963. In 1968, Americans were twice as likely to use the Pill as they were condoms." The most common methods of contraception today in the US are sterilization and hormonal contraception, and like in 1968, hormonal contraception is used by twice as many women as the condom, 37% to 18%.

For most STDs the risk of contracting them is greater than the pregnancy risk. In the 1960's into the 1980's though, men and women acted as if pregnancy were the greater risk and relied on the Pill since it provided better pregnancy protection than condoms. At that time many STDs could be cured with antibiotics, while legal abortion before 1973 was largely unavailable to "cure" an unintended pregnancy.

By relying on the pill and foregoing condom use, women were taking a bigger STD risk then men. For instance, females have a 60% to 80% chance of contracting a case of gonorrhea with each act of intercourse, whereas men only have a 20% chance, or 3 to 4 times less risk. With just two acts of intercourse a female is almost certain to get gonorrhea from an infected man. This risk is unacceptably large even though gonorrhea if discovered is curable with a single dose of antibiotics. The health risks of gonorrhea for women include pelvic inflammatory disease, cancer, infertility and harm to the children born while the mother is infected.

Sexually transmitted diseases cause infertility by damaging a woman's fallopian tubes, thus preventing conception or implantation of the fertilized egg and increasing entopic pregnancies. Studies estimate that pelvic inflammatory disease accounts for one-third to one-half of the cases of female infertility. A World Health Organization report from 1987 estimates that "Almost two-thirds of infertility in African women was attributed to infection (by STDs)…."

It is difficult to pinpoint the extent to which men and women changed their sexual practices, the amount of their sexual activity, and the number of their sexual partners when they changed from condoms to the Pill. There is, however, fairly reliable data on the results of these changes, all of which shows a rise in most STDs over the years. Researchers believe that, after two decades of decline, condom use began to increase in the mid-1980's in response to the AIDS epidemic, but even today condom use is by no means universal, or even used in the majority of acts of sexual intercourse. Documenting the rise in STDs is complicated by improved detection and reporting systems, which means that more STDs get reported to the government. It does not necessarily mean that there has been an absolute rise in STDs.

Despite the irregular pattern in the rise and fall of STDs, health experts agree that contraceptive patterns are a major factor in the transmission of sexually transmitted diseases and that condoms are the best way to prevent the transmission of STDs if one is going to be sexually active.

The use of hormonal contraception carries its own risks, not just because it does not prevent the transmission of STDs, but in some cases may increase the risk. The effect of hormonal contraceptives on STDs, HIV and resulting infertility is “unsettled”, according to Dr. Willard Cates. Studies have found both an increased risk of chlamydia and gonorrhea among pill users as compared with non-users and a decreased risk of being hospitalized with PID. Another study found that users of high estrogen pills had a greater risk of infertility than non-users. A recent 2003 study of women taking oral contraceptives in The Lancet found that “long duration use of hormonal contraceptives is associated with an increased risk of cervical cancer”. Women who had HPV and used the Pill were at even greater risk for developing cervical cancer.

In a study last year there was an **increased risk** of infection for Chlamydia and gonorrhea in the DMPA and pill users, but the risk was far greater for the DMPA users. The authors called the DMPA risk "significant"---the hazard ratio was 3.6. The hazard ratio for the pill was 1.5. This was in line with 29 previous studies of the pill that averaged a 1.9 hazard ratio for chlamydia and a 1.7 hazard ratio for gonorrhea. The hazard ratio measures relative risk between the hormonal contraceptive users and the control group.

The study found varying sexual risks in the different groups. The control group (no pill or DMPA use) was more likely to have multiple sex partners and to have had sex with a possibly infected person. Pill and DMPA users were more likely to have sex but used condoms less frequently (this is in line with previous studies).

The mechanism by which there is an increased risk of infection is still a mystery. Cervical ectopy, also called cervical erosion, was found not to be what they called "an important mediator" of the hormonal contraception-cervical infection association---this was a surprise to the authors. Their hypotheses as to the physiological mechanism for the increased infection risk include: thinning of the vaginal walls by DMPA, the hormones enhancing the growth of the infection or the hormones depressing the immune system. Clearly more study is needed on the mechanism operating here.

Some scientists believe that use of hormonal contraception increases the chances of HIV infection. Dr. Cates in “Contraception, Contraceptive Technology and STDs” states: “The effect of hormonal contraception use on HIV transmission, acquisition, or disease progression remains unsettled.” Human studies so far are conflicting and inconclusive. In 2003 at the same time as studies in Uganda found no evidence that oral contraceptives contributed to the risk of acquiring HIV, a long term study in Kenya among sex workers “provided support for the hypothesis that use of hormonal contraception could facilitate HIV acquisition.” Dr. Ludo J. Lavreys, of the University of Washington who is based in Kenya, and his colleagues found that the rate of HIV-1 acquisition was 1.8 times higher for those women using Depo-Provera and 1.5 times

higher for women using oral contraceptives than for women using no contraception or surgical sterilization. Dr. Lavreys said that he and his team adjusted the results for any differences in condom usage or in sexual behavior because of different methods of contraception the women used, as well as for different sexually transmitted infections the women might have contracted. Dr. Lavreys and his colleagues believe that both Depo-Provera and oral contraceptives bring about certain biological and physiological changes to the vagina and cervix that might increase the risk of contracting HIV.

Even with the recent increase in condom use, there is still a STD epidemic in the United States and the rest of the world. In 2003 in the United States there were 65 million people, out of a population over the age of 15 of about 230 million people, currently infected with a STD, with 3 million new cases being reported a year. This represents almost 30% of the adult population. There are also about 3 million reported unintended pregnancies a year (about half of pregnancies are reported as unintended). It is clear that new contraceptive technologies have not gotten us as far as we might have hoped in solving the twin problems of preventing unintended pregnancy and sexually transmitted diseases. But have they made it worse?

New Male Contraceptive Options

Now there is a modest push to expand the reproductive options for men. Research is underway on hormonal methods to shut down sperm production and on immune suppressive methods for doing the same thing. Is this a good idea? Men have had only a few methods of male-controlled contraception--- the condom, vasectomy and withdrawal, none of which are ideal. Since society had failed to get couples to dual protect, i.e. the man and the woman each use a method of contraception, one of which being a condom, what will now happen if men use a hormonal method? Even less condom use? But will men then take more responsibility for resulting pregnancies and children, if it is somehow viewed as their fault? If the risk of a woman taking sperm out of a condom and using it to impregnate herself, or taking it out of her mouth as happened a few months ago, what does this mean for the balance of sexual power if that sperm is sterile?

Preliminary research done in 2000 on the acceptability of a male contraceptive indicates that over half of the men responding say they would use a male hormonal contraceptive. A similar proportion said that the condom decreased their sexual satisfaction, but that they felt that condoms were safer for health reasons and also that the condom was more effective at preventing pregnancy. There was virtually no feeling that a male pill would lessen sexual satisfaction or desire, as it does in some women. Since the pill has yet to be developed and fully tested, this part of the response has yet to be validated. There was a direct connection in the respondents' minds between the feeling that the condom decreased sexual satisfaction and their willingness to try a hormonal method. Not surprisingly, and consistent with women's experience, the men said they would prefer a daily pill rather than an injection or an implant. This keeps their reproductive options open. A majority of men also felt, consistent with the above results, that responsibility for contraception fell too much on women. Most of the men (over

80%) were generally happy with their current method of contraception, be it a male method, sterilization or condom, or a female method. This should be remembered, along with the following observation.

At the end of the questionnaire, the researchers told the men that they would have to produce a sperm sample at the end of three months of taking the medication to be sure that no sperm was present. The men uniformly reacted negatively to this. They also reacted negatively to a three month wait before the method would potentially work. This regimen is the same as for vasectomy, which is used far less than female sterilization. The men were not asked, after hearing this information, whether their earlier expressed interest in trying the method had waned. Clearly there are hurdles to be overcome in making a hormonal male contraceptive acceptable. One factor to increase the likelihood of male acceptance that was implied by the study was the concurrence and even urging of the female partner.

The researchers also surveyed the men's female partners. Most women said in principle that a male contraceptive was a good idea. Many female respondents indicated that they did not like condoms because of the breakage factor. But many of the women (up to two-thirds in some cities) also indicated that they would not want to rely solely on a male method. Lack of trust was stated to be a major factor, as were health risks for the men presumably. Very few of the women mentioned fear of sexually transmitted disease, even surprisingly the women surveyed in South Africa, a center of the HIV epidemic. Was giving up female control of the timing and creation of a pregnancy an unstated reason? The survey results are contradictory. Most respondents stated that they thought a male contraceptive was a good idea, and many said they would try it now or in the future. But these were hypothetical responses to a non-existent contraceptive. There is no doubt that there will be some couples for whom a male contraceptive would be ideal—because the woman could not use a method or no other method suited her lifestyle, needs or medical conditions. Even if 3 % of couples used it, this would represent as large a market as for Norplant or even Depo-Provera in some countries. One suspects that, as with any contraceptive decision, it will be made within each couple's dynamics and that these dynamics will change as the relationship evolves.

We saw that some females wanted to put the contraceptive onus on men. The reverse is also true. In a survey done in South Africa in 2001, the epicenter of the AIDS epidemic, 82% of men said that they would prefer that their partner use a microbicide rather than they use a condom. Only 18% of men preferred that a condom be used. Dislike of condoms was strong, the cited reasons being that they interfered with sexual pleasure, they weren't trusted, and they were unnatural and uncomfortable. The report founded that only 7% of the men in the general population said that they used a condom when they last had sex with their wives. This percentage went up sharply though when the men had sex outside of marriage. Concern was expressed by the men that if a microbicide be substituted for condoms that it not interfere with sexual pleasure by providing too much lubrication. Interestingly, both the men and women in the survey indicated a need to have their partner's informed consent to microbicide use.

Paternity Uncertainty

Contraceptive patterns have a direct effect on male paternity certainty. Paternity uncertainty has been called a 'bugaboo' by some, but is taken very seriously by others. What is the extent of the paternity uncertainty problem from the male point of view? Studies in various cultures worldwide are remarkably consistent and show that about 5-10% (the range is enormous and varies from under 2% to about 30%) of children are not the genetic child of the father listed on the birth certificate. The studies range from Iceland to England to the Yanomamo Indians of Venezuela. In one respect 5-10% seems like a low figure, but from a male evolutionary perspective it is extraordinarily high. It is a figure that represents evolutionary/genetic death for the non-father at least with respect to that child. It is as if in jumping out of an airplane with a parachute there was a one in ten or one in twenty chance of the chute not opening. In such as case few would take the risk. The downside risk, death, is too great at 5-10%. Why should males take the risk of evolutionary, genetic death with female infidelity or cuckoldry? Males don't want to take this chance, at least where they would be required to invest a lot of time and resources in parenting. A man does not want to devote time and resources to parenting a child that is not his; he wants to conserve his resources for his genetic children. It is in a male's best evolutionary interest to know who his offspring are and presumably to parent them, if male parenting is needed to get them to adulthood safely.

Anthropologist Sara Blaffer Hrdy in her book, "Mother Nature", describes the interlocking nature of male and female sexual strategies, where females might be better off if she had had sex with several males, thereby improving the odds that there will be several candidates in the neighborhood who classify her offspring as possibly 'kin'. By having multiple partners, females can make use of inherent male paternity uncertainty to increase the survival chances of their children.

It is difficult for men to solve the problem of paternity uncertainty by preventing a woman from having sex with others while she is ovulating because a man does not know when a woman ovulates. Mate guarding is difficult enough for primates and other animals even when ovulation is clear. It is near to impossible for humans when we don't consciously know when a female ovulates. To solve this problem, men have evolved to be especially concerned about the sexual faithfulness of their mates. Those who took steps to assure fidelity or who were more attuned to their mate's moods and feelings were more likely not to have their mate be unfaithful and thus succeeded in passing on their genes and not parenting someone else's children. A past history of sexual activity with others would serve as warning for males to be extra careful.

As Psychology Professor David M. Buss of the University of Michigan states:

"Men who were indifferent to the potential sexual contact between their wives and other men would not have been successful at passing on their genes."

Males evolved two strategies to deal with the vagaries of female behavior and paternity uncertainty --- guarding their mates and being promiscuous themselves. Sara Blaffer Hrdy states:

> "Given the situation as we find it, females mate with more than one male. This leaves males little choice. They must mate with as many females as they can, or else find themselves at a relative disadvantage vis-à-vis their rival's efforts to transmit their own genes to the next generation. Like mothers, males make tradeoffs of their own. Males must choose between parenting offspring they may have sired, and seeking to mate with additional females and possibly siring more."

During the time when a man is in a monogamous relationship, as David Buss points out, it is in a man's interest to insure his wife's fidelity. A man will try to insure paternity certainty by mate guarding to insure that only he is having sex with his partner. Throughout history men have devised a whole host of methods of mate guarding to try to maximize their paternity certainty and thus to minimize their reproductive loss by parenting another man's child. Chastity belts, virginity tests, sequestering of females, chaperoning, not to mention laws against adultery which often punish the woman more than the man, the sexual double standard, cliterodectomy (removal of the clitoris in order to reduce the woman's sexual pleasure) are all methods devised by husbands to try to insure their wives' fidelity and to preserve their exclusive sexual access. These systems of control may also be possible strategies to reduce the incidence of sexually transmitted infections which can cause infertility in women, thus preserving them for men to impregnate. While chastity belts are out of fashion, all the other methods are alive and well today somewhere on the planet.

Theoretically everyone should benefit from secure knowledge of paternity and from women having reproductive rights. Men would have less biological, but perhaps no less emotional, need to impose cultural and legal controls over their wives' sexuality. These controls, legal and cultural, including restrictions on birth control and abortion, were created in part to maximize his paternity certainty, but also to preserve marriage and male status. With DNA testing there would be less need for these controls. Birth control and abortion would still be needed for couples to regulate their own fertility and would not need to be restricted to minimize infidelity. Cuckoldry will be discouraged by the existence of DNA testing. Men and women can enter in relationships knowing this in advance and can use reproductive freedom to further their joint reproductive interests. The father, free from paternity doubts, will invest more in the family unit. Family formation should increase. There should be less children being raised in single parent homes. Spousal and child abuse should lessen in cases where paternity is confirmed but may increase where it is disproved. Cuckoldry should decrease, along with to some extent the genetic variation of our species. Will women and men divorce more and resort to serial monogamy in order to achieve genetic variation in their children? How far along

this road will our biological tendencies take us? Conversely, will DNA testing weaken, rather than strengthen, societal institutions like marriage since these institutions are no longer necessary for the male to control his wife's sexuality or the genetic parentage of her children? These are all unknowns, but DNA testing will give males an unprecedented opportunity to level the reproductive playing field and may give women new reproductive freedoms.

Male Opinion on Abortion

The battle of the sexes is a battle for the control of reproduction. Abortion is the ultimate in female control of reproduction.

A man's reproductive prospects depend on his status vis-à-vis other males, his economic and social circumstances, his desirability as a potential mate and the reproductive strategy he is pursuing at that moment. Lower status males with fewer prospects for mating generally have less opportunity to get chosen by a female to mate. Giving their mate the means to avoid pregnancy or childbirth may not be in their immediate interest. Taking away reproductive control from the female gives the male more control over pregnancy and childbearing.

Male, and female, support for legal abortion may depend on the status of the relationship and economic circumstances of each party at the time of pregnancy. Why would those males who are less likely to mate and father children be supportive of female-controlled contraception and abortion? Surveys reveal that the most common reasons women give for having abortions is that it is not the right time for a child, they want to continue their education, they cannot afford the child and they don't want to raise the child alone. For males who have status and resources and who are more likely to have multiple mates, there would appear to be additional opportunities to have children if their current partner did not want to. A woman's ability to "control" the abortion decision would have less impact on these men than on those less economically fortunate. Thus higher status males are generally more supportive of legal abortion than low status males are.

Abortion creates a conflict for low-status men. In the reproductive dance it is the men that get chosen by women. The men at the bottom of the economic totem pole are generally the wallflowers---the last chosen and the first to be cut in on. They have the fewest resources. Low status men in the Western world find marriage and family formation increasingly out of their control. For males it would be in their interest to have legal abortion available so that they could determine which children they want to have when they can afford them. The problem for men is that abortion is a woman's decision, not theirs. Women control the reproductive process. The availability of female-controlled contraception and abortion put reproductive decisions firmly in a woman's hand. For low status males the problem is that the woman's pregnancy may be their only shot at reproduction, and it can be terminated without their knowledge or consent. But in a particular case where a man's partner is pregnant, where they decide that it would be

better to have a child later, and where it is likely that the man will actually have the opportunity to father a child later on, then the man will see legal abortion as being in his interest.

However, the availability of legal, female-controlled abortion will change female, and thus male, reproductive behavior. Males and females may end up with fewer opportunities of family formation and parenting. A male's options when his partner is pregnant are greatly circumscribed by the obligations of child support. He can neither disavow the child nor demand an abortion. Because the woman has the power to have an abortion, or to have a child, the male's only countervailing power is to refuse to marry her. He can refuse the shotgun because having the child was her doing, not his. To the extent that a female wants the option to demand marriage and to the extent her right to seek an abortion is a cause of his reluctance to marry, then the legality of abortion may not be in her interest. Her interest in a commitment from the man who has impregnated her may override her interest in starting over with a new man. This calculus may depend on the availability of suitable males now and in the future. As a result, females, depending on their status and desirability as a mate, may be just as opposed to abortion being legal as some males are.

The growing gender gap in approval for abortion may be a result of the declining economic status of men, who have seen a long decline in earning power over the past three decades. From 1979 to 1996, women's income rose 7.6% and men's fell 14%. In 1996, one-third of wives earned more than the husband. For men ages 25-35, not only has their relative income fallen, but one-third of them do not earn enough to keep a family of four above the poverty line. Most men are working. The unemployment figures tell us that. It is the relationship between male and female earnings that is changing, and with it the culture.

Sex Ratios

The dangers of gender bias in favor of males can be seen in the skewing of sex ratios in certain societies. While differential rates of infant mortality affect the sex ratio of the society, the sex ratio being the number of females per 100 males of all ages, so do the differential abortion rates, or infanticide rates, or unreported birth rates. In China, India and Korea there is an extreme and growing skewing of the sex ratio due to all these factors. The worldwide norm for the sex ratio at birth is 105- 106, that is to say 105 boys are born for every 100 girls, and boys being the weaker sex, things tend to even out, sort of. The sex ratio at birth in China in 2000 was about 117, that is to say 117 males were born for every 100 females. Estimates in 2004 are that the sex ratio at birth is 120, or 120 boys are born for every 100 girls, far above the worldwide norm of 106. In addition, Chinese females are dying at a higher rate than boys in infancy. There is certainly an underreporting of both female births and female infanticide, but experts believe the reported figures reflect the seriousness of the sex ratio imbalance.

Why are the sex ratio and infant mortality rates important? Many reasons. The CIA, with your taxpayer dollars, has actually done something useful that not even John Bolton tried to suppress, and has studied the collapse of nations over the past 50 years and found three common threads. A nation or government will collapse when, in increasing level of importance, 3) it lacks open borders and open trade, 2) it lacks democratic institutions and the number 1) indicator of the collapse of a nation, it has a high infant mortality rate. Why might this be? If governments and civil societies were formed to enable us to have and raise our children safely, then a high infant mortality rate indicates that our government is not doing its job and needs to be replaced.

The CIA is also looking hard at the sex ratio imbalance in East and South Asia. The result of more boys being born and surviving than girls is that over the next decades estimates are that about 30 to 40 million Chinese males will be unable to find a bride, marry and settle down. Men are engaged in a variety of strategies, marrying younger, marrying cousins, and paying more for a bride or resorting to kidnapping. As one observer wrote, "Being in short supply does not seem to alter women's status and autonomy." Given this sorry gender reality, one would think that Chinese parents would correct the sex ratio imbalance by having more females since it would be more likely for the female child to marry and have children. There are no signs of this happening yet.

Given the economic realities of marriage, it is the less wealthy male who will be most likely left out of the marriage market. The poor male is a less attractive marriage partner and probably cannot afford to purchase a bride from kidnappers. What is a poor male to do? Many migrate; there are 125 million migrant workers in China. Estimates are that urban unemployment totals about 30 million workers. The unemployed are mostly male, poor, uneducated, unmarried and migrant. For society's point of view they are not just a wasted resource, they are a danger. Crime, drug use, prostitution and HIV are all on the rise.

Given the demographics of China for the foreseeable future, it would seem that China can look forward to more socially disruptive behavior from its young men as well as more illness and fatal disease. This is not a prescription for the eventual liberalization of the authoritarian state and the building of democratic institutions.

As researchers Valerie Hudson and Andrea Den Boer have pointed out, "there is only one short-term strategy for dealing with (this) problem (excess males): Reduce their number. There are several traditional ways to do so: Fight them, encourage their self-destruction, or export them." Longer term, the only solution is to reduce the sex ratio imbalance and that means reducing discrimination against women before and after birth.

Males in the Modern World

With the decline in marriage, women who want to be mothers face a difficult task—to find the right guy to marry or failing that to impregnate her. If men are reluctant to commit to marriage for economic or legal reasons, what is a woman to do? Sperm

bank business is on the rise, and now gay men, who want to father and raise a child, are being denied that opportunity under new regulations and laws denying them the right to be a sperm donor and to adopt children. Sperm quality may also be declining. Though the studies conflict, there is some evidence that environmental toxins affect sperm quality, as do perhaps tight jeans and cell phones. There is also concern that female hormonal contraception may affect a decline in male sperm production, as if the male's system intuited that there was no point in spending all that energy to produce sperm that won't do any good. In addition, approximately two million women in the U.S. and Europe unknowingly take the pill while they are pregnant, and the hormones may affect the sperm count of the male child they are carrying. And the male biological clock begins ticking at age 24, with sperm quality declining 3% a year after that.

In a survey in Japan in 1999, 75% of Japanese parents stated that they preferred to have a girl rather than a boy. In a society known for a bias towards males, this was an incredible result. Daughters were viewed by the parents in the survey as easier to handle, more emotionally accessible and more likely to take care of their aging parents. Life was viewed as easier for girls. Boys have to compete throughout school and in the job market. Women were viewed as having more choices, and life as being easier for them. This is not reflected in the sex ratio at birth, yet.

Men are having difficulty adjusting to the new reproductive and economic realities. The US government is pushing marriage as the solution. Under the 1996 welfare law states are paying marriage bonuses in order to encourage marriage. It is called Bridefare. It hasn't worked. Why not? Because it takes two to agree to marry and for those on welfare their baggage, be it poor health or simple poverty, substance abuse or a criminal record, is often too much for a potential mate to want to settle down with. Not to mention the potential for domestic violence. The poor can't afford to get married. Bridefare is the new shotgun marriage. But it's too risky for too many poor`. It is like the line from George Bernard Shaw's "Pygmalion" when Doolittle offers to sell his daughter to Henry Higgins for speech training:

PICKERING. Have you no morals, man?
DOOLITTLE [*unabashed*] No, no. Can't afford 'em, Guvnor. Neither could you if you was as poor as me.

So, I would answer the question, where are the men, by saying they are in the state of confusion.

It is ironic that any recommendations for men relate to their behavior before sex: communicate, negotiate, take control, and use a condom. Be prepared for the consequences if you don't. Think about the consequences for your life if your partner were to have a child in nine months. Think about the child support and parenting obligations, as well as the joys. Think about the diseases you might catch. After you have sex, reproduction is out of your control. The woman decides whether to have a child or not. This all sounds suspiciously like advice from a pro-life advocate. But it's the biology. It is neither fair nor unfair. It is. The effects on men can only be ameliorated if

men and women ahead of time understand them and try to find a way through the thicket of possibilities together.