

## **Johns Hopkins School of Public Health**

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### **Remarks of Alexander Sanger**

I want to thank the Bloomberg School of Public Health, Dean Summer, Professor Blum and Dean Wehr for the opportunity to address you today and especially my friend Trustee Adena Testa for making it all possible. I am especially thankful because I know the risk you are taking in having a non-academic address this institution.

I have spent the last year traveling the country making myself thoroughly unpopular on the right and the left arguing that both sides of the abortion argument are, if not wrong, then at least misguided, uninformed and missing the point. I make no claim to impartiality, even though in my book I do try to set out the major arguments of the pro-life movement in as fair a manner as I can. When I spoke recently at the Alabama School of Public Health, the Dean said, “There is no other side to the abortion issue—from a public health point of view we know that there are two choices: that abortion be legal and safe or alternatively illegal and unsafe--- in public health there is no choice, it must be legal and safe.” We have seen both in our nation’s history.

The role of public health in the abortion debate has been less than one would have hoped. Every public health expert and physician of a certain age remembers that every hospital in the country before abortion was legalized had an abortion trauma ward, a post-abortion ward, a septic abortion ward, the names varied but the purpose didn’t, trying to save the lives of women who had had botched illegal abortions, self induced or otherwise. Doctors were among the chief advocates for legalization of abortion in New York and other states which legalized abortion

before *Roe*. While medical and public health associations do speak out on abortion legislation, their views do not carry the weight that we need. I hope to explore today how we can change that.

We are approaching the 200<sup>th</sup> anniversary of abortion being the most contentious issue in American politics. In 1776 when our nation was created, abortion was legal. In 1819 Connecticut passed the first law outlawing some abortions. In the intervening two centuries abortion has swung from being legal to illegal to legal again to now where it may be legal but under severe attack. The polling that we do have indicates that American public opinion hasn't changed one iota.

The Gallup Poll taken at the end of 2003 is identical to the Gallup Poll taken in January 1975: 25% of the American people support unrestricted abortion rights, 15-20% believe all abortion should be illegal and about 60% are firmly in the middle----they believe that abortion is to a greater or lesser extent immoral, but they believe it should be legal under certain limited circumstances. I often feel that the average member of this 60% group believes that abortion should be legal for "rape, incest and me".

The impetus for my book grew out of a very simple but heretical question. How many more pieces of anti-choice legislation will it take to get the pro-choice movement to rethink its approach to the issue? How many more unchanging polls will it take before we realize that we are not reaching the American people?

We are still using the same arguments for abortion rights that my grandmother used for birth control. In 1914 she challenged the Comstock laws by publishing a newspaper called "The Woman Rebel" and in her statement of editorial purpose she wrote:

"A woman's body is hers alone. It does not belong to the Church. It does not belong to the United States of America or

any other government on the face of the earth. The first step towards getting life, liberty or the pursuit of happiness for any woman is her decision whether or not she shall become a mother”.

These are the same arguments that we use for abortion rights—that it is a woman’s body, a woman’s right, and that it is none of the government’s business. And that it is a public health matter.

Why have pro-choice arguments not been persuasive enough to win to our side the nominally pro-choice middle?

I think there are four reasons. First, the arguments based on women’s rights and on a woman’s right to control her body are addressed primarily to women. These arguments do not directly address the reproductive interests of men.

Second, any argument based on a right to bodily autonomy must recognize that there are exceptions to this rule and that it can not be absolute--- vaccinations, quarantines and body searches at airports being just some examples.

Third, the privacy argument--- that we are entitled to live our lives without unnecessary government interference into our private lives--- runs up against the realities of the modern world where there is less and less privacy—there is no internet privacy, and cameras to deter crime photograph us as we walk down the street in major cities and bans on smoking in public places are just the latest invasions of our privacy.

But most importantly the public is not persuaded that the pro-choice arguments we have been making answer the basic moral question of how one can support reproductive choice when one believes that bad choices are being made or that having the choice

in itself leads to bad results or that the technology used to make choices leads to detrimental unintended consequences.

I had the opportunity to review the article by Professor Thomas A. Glass , “Extending the Horizons of the Socio-medical Sciences” which was prepared as part of the Ad Hoc Committee on Behavior and Health in 2003. Dr. Glass noted that there have been numerous “high visibility efforts (to change behavior) that have yielded disappointing results.” Dr. Glass also noted that one trend is to “extend the understanding of behavior to include the biological mechanisms that underlie or are consequences of discreet behaviors.” Dr. Glass notes with understated approval that biological and social scientists are beginning to talk to one another. Imagine!

I did not read Dr. Glass’s piece before I wrote my book, but that it exactly what I am trying to do---to bring a biological perspective to the issue of reproductive rights and to get academics from various disciplines to talk to each other. This is a tall order, since my book is not aimed at academics and since I assume academics will read only works by other academics. I rather am aiming right at the American public and to those who write the checks for your research, whom I trust will understand that you are on the right track here at Johns Hopkins with your interdisciplinary approach.

I want to suggest two areas where the pro-choice movement needs your help. I make these suggestions fully understanding that there is not a straight line between academic research and public policy. But nonetheless, I believe we in the pro-choice side have not made as much progress with the American people, and thus politically, because we are still reticent about sex, because we have not treated males as independently reproducing creatures and because we have not sufficiently addressed the downsides of reproductive technologies.

I believe to make progress on the abortion issue we have to answer the fundamental question, why should we have reproductive freedom in the first place? Why does reproductive freedom exist? What are the good and bad of reproductive freedom? If there is a bad, what is the optimum amount of reproductive freedom we should have?

The arguments we use in support of reproductive freedom do not answer these fundamental questions. They don't say why reproductive freedom is good and moral, and dare I say, natural. Morality has evolved as humanity has, and a system of morality must support the survival of the human race.

The answer to the questions I have posed must be a moral one, and the moral answer is a biological one. H.G. Wells said in the introduction to my grandmother's book, "The Pivot of Civilization" that "a civilization is a system of society-making ideas at issue with reality. Just so far as the system of ideas meets the needs and conditions of the survival of the society it dominates, so far will that society continue and prosper."

The whole battle over reproductive freedom is a battle between those who have an idea of what the reproductive system ought to look like and those of us who know what it does look like.

I believe we can gain ground if we ground our arguments in favor of reproductive freedom in the reproductive realities that each of us faces.

We have reproductive freedom because reproductive freedom allows for successful birth, reproduction and family formation. We all are here because of the successful reproduction of our

ancestors. We all share one thing in common: each of our ancestors saw to it that at least one of their children was born alive in good health and survived to adulthood where they repeated the process. We all, or most of us, want to repeat the process and have children and grandchildren. Every parent wants to be a grandparent. Reproductive freedom, including abortion, makes this possible. Reproductive freedom is therefore just as important to those who want to give birth as it is to those who don't want to. We must be on the side of both. In fact women, and men, want to do both at different stages of their lives.

I believe that American and worldwide views of abortion will become more pro-choice only when we put abortion in a reproductive, evolutionary and biological context. Women who make the decision to have sex or not, use contraception or not, or have an abortion or not are making biological decisions. In many ways it is a misnomer to say that to do so is a "reproductive right". It is simply profoundly human. To the extent that the pro-choice movement is trying to advance "reproductive rights", my book is designed to shift our focus from rights to reproduction. If we can do this, then I believe that we will be talking in terms that every person can relate to.

Life does not exist without successful reproduction. I suggest we throw out the 31 year old irreconcilable conflict between life and choice. We can embrace life as the ultimate value but on our terms and define life to include its creation, its propagation, and its nurturance and survival.

The primary reproductive, evolutionary and biological obligation we parents have is survival---our own and that of our children. Women have developed strategies, conscious and unconscious, to increase the chances of their and their children's survival. Women have evolved their strategies in their particular

environment, but no matter what the environment, each woman is living in a world governed by the laws of natural selection.

It all starts with sex. Reproduction isn't a random event and neither is sex. Sex has multiple purposes. Men and women use sex, procreative and non-procreative, as part of their individual reproductive strategies. The sexual selection process, as well as the natural selection process, is intricate. There are tradeoffs at every step. Every male and female must assess their reproductive options depending on their situation and environment. This assessment and resulting strategies may be conscious or unconscious. As has been said, there are essentially three strategies that individual can use to increase their chances of reproductive success: increase the fitness of their offspring by mating with individuals of high genetic quality, increase offspring fitness by increasing parental investment and increase the number of offspring. No one strategy is inherently better and each involves tradeoffs with the others. Having as many offspring as possible is seldom a winning strategy.

The biggest threat to the survival of women and children throughout human history has been death in childbearing. Even today 500,000 women die annually from pregnancy related causes. The risk factors are well known: the births are spaced too close together, she is too young, she had had multiple births already, she is malnourished, anemic, or has high blood pressure or diabetes. Even then doctors do not know which woman will be threatened in childbirth. In the U.S. 40% of pregnancies have complications. In poorer countries the threat is greater. In the African nation of Mali, there is an expression: "A woman who gives birth opens her own coffin."

A woman's survival depends directly on her ability to control pregnancy and childbearing. Children's survival depends on their condition at birth, their parent's survival, especially their mother's survival, and the nurturing they receive from their

parents. Children need to be timed and spaced for survival. There are limits to how many children parents can raise and nurture.

When a woman dies in childbirth, it is likely that the child she is carrying will die as will the children she already has. The World Health Organization estimated recently that when a mother dies prematurely there is a 3 to 10 times greater chance that the children she already has will not survive to adulthood, because she is not there to care for them.

These survival instincts do not disappear once we enter the First World. Women have to assess the tradeoffs in their reproductive strategies and allocate their effort accordingly. This will involve for most women limiting and timing their childbearing.

Natural selection favors women who control their childbearing, because then they maximize the chances of their own and their children's survival. A woman must look at her total environment, her condition, her health, the health of the children she already has, whether she has a mate or not and whether he will help with childrearing and support, her prospects ahead and the prospects for the society in which she is living. A woman is the best judge of the conditions and circumstances under which she should give birth. It is an evolutionary rule that not every pregnancy should result in birth. Sometimes parents must conserve their energy and resources for the children they already have or will have later. Sometimes life changes while a woman is pregnant—either when her mate leaves, her economic circumstances decline or one of her other children needs her attention and care.

This is why 46 million women a year say no to childbirth when they are pregnant. Successful reproduction is not a random event. It requires strategies and making tradeoffs. My grandmother

was more right than she knew when she said that “every child should be a wanted child”. Because wanted children have a greater chance of survival. Women know this and that is why birth control and abortion are universal.

Despite what various cultures say, there is no single formula or pathway for reproductive success in life. It all depends on the totality of one’s situation and the environment. Reproductive success comes from taking control and doing the best one can under one’s circumstances. Darwinian natural selection favored those women who minimized these risks, survived childbearing and successfully raised their children. The women who did not failed to pass on their genes. A system of morality must contribute to the survival of humanity. The system must respect our biological imperatives and instincts.

How do we include the males?

Males face two major evolutionary problems--- first, that fewer males reproduce than females. Researchers at the University of Arizona reported in September that “More men than women get squeezed out of the mating game. As a result, **twice** as many women as men passed their genes to the next generation.” ...

“It is a pattern that’s built up over time. The norm through human evolution is for more women to have children than men. There are men around who aren’t able to have children, because they are being outcompeted by more successful males.”

The toll on male health is immense. Researchers at the University of Michigan reported in May that the two biggest risk factors for an early death were to be young and male. “Being male is now the single largest demographic risk factor for early mortality in developed countries.” The danger of being male rather than female is concentrated in the years between adolescence and

adulthood. In those years the death rate for men is nearly three times higher than for women. While the differences exist later (the death rate for suicide for ages 75-79 is 9 times greater for men), they are generally more pronounced at earlier ages. For every 10 premature female deaths, there are 16 male premature deaths. The peak is at the age of sexual maturity. The biggest differences are for homicide and accidents. The researchers conclude that the reasons were as old as time: “males have to 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 successfully get a partner. Because of this, men are willing to take a higher degree of risk.” The researchers noted that reducing the number of weapons probably would not help since the male-female difference persists in countries where there are no handguns.

The male’s other basic biological problem is that until recently men have never known who their children are. Men have absolutely no assurance (until the advent of DNA testing) that he is the genetic father of the children that his “mate” produces. Aristotle pointed this out in 350 BC. This is the basic problem of paternity uncertainty for males.

Is this a problem? 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. Men’s fears of female infidelity are entirely justified. Women have their own very good reproductive reasons to have children by more than one father—genetic variation. She is hedging her genetic, social and economic bets.

The American Association of Blood Banks (AABB) reported about 330,000 paternity tests in accredited labs in the year 2002, with the number increasing every year and the price falling. The AABB reports that in 29% of the cases in 2002 the man tested was not the father.

Natural selection favors men who know who their children are. If a man devotes the time, resources and energy to parent his children, it is more likely that his genes will get passed down. Natural selection does not favor men who unknowingly raise someone's else's children. If he unknowingly parents some other man's children, he is helping some other man's genes, not his own, to get passed down. Men have evolved to have a variety of strategies including trying to prevent other men from having access to their mate or else trying to have sex with a variety of partners in the hopes that he might father some children who might survive without his parenting.

Examples include the chastity belt, laws criminalizing adultery which punish women more than men--- in Nigeria today women are stoned to death for adultery, men get lashes on the back---and laws restricting a woman's reproductive freedom by restricting access to birth control and abortion. These laws raise the risk of a woman having sex outside of marriage and are an attempt to deter it.

I remember the first President Bush's Assistant Secretary of Health, Dr. William "Reyn" Archer III, saying on the Ted Koppel show that, because of birth control, his mother went out and had an affair and it broke up his parent's marriage, and that was why he was opposed to birth control. He also said that the Supreme Court decision legalizing birth control for married couples, the *Griswold* decision, was an unwarranted intrusion into the privacy of marriage. Imagine!

The battle of the sexes is a battle for the control of reproduction. Women have to control reproduction in order to survive childbirth and have their children survive. Men need to control reproduction in order to maximize the chance that they are the father of the child that is born.

So, how can we get men of every status, excluding Reyn Archer, to support reproductive freedom? There are biological bases for all human behavior, and even if you are hesitant to believe that, I hope you believe that there are biological bases for human reproductive behavior. Male opposition to female reproductive freedom is based in our biological differences. I believe only by eliminating paternity uncertainty can we eliminate the biological basis for male opposition to reproductive freedom. Technology in the form of DNA testing now allows this.

If men no longer fear infidelity, doesn't the biological foundation for what are viewed in some quarters as patriarchal practices crumble? Males after all have gone to great lengths to restrict female sexuality and to preserve his sole sexual access to her. DNA testing could lead to the elimination of the biological reason for these practices and to reduced male opposition to a woman's reproductive freedom.

I believe this will lead to more family formation, marriage and men supporting and raising their children. I believe it will lead to reduced domestic violence since the riskiest time for a woman is while she is pregnant, and the leading reason I believe is that the man fears he is not the father of the child. Remember 71% of the men were wrong. And I believe it will lead to more male support for reproductive freedom since a man, assured of paternity, will want his wife/partner to survive childbirth, and give birth to a healthy child who will survive to adulthood.

We don't like to think about the reproductive system—it is kind of like the food supply—we don't think about it until something goes wrong—like Mad Cow disease. And something is wrong with the reproductive system in this country. 65 million Americans currently have a sexually transmitted disease. That is 1 in 3 adults. The CDC recently reported that 1 of 2 young people age 18-26 currently has a STD. What has this led to? One in 5 couples experiences infertility. There is a direct connection between STDs and infertility.

The result of STDs is direct reproductive harm. The tragedy is that some of the people unable to reproduce successfully (because they contracted a STD) suffer these consequences, not because of their own activities, mistakes or misfortunes, but because of someone else's. The people affected by STDs and infertility are not always the ones making poor choices.

In order to get pregnant a woman must have unprotected intercourse. Every woman is at risk from the past sexual behavior of their partners and of the other men and women that their partners have had sex with. Life and sex are unfair to women. A woman is much more at risk for contracting a STD than a man is. Take gonorrhea. In one act of unprotected intercourse a man has a 20% chance of contracting gonorrhea from a woman. However, a woman has a 60-80% chance of contracting it from a man.

The biological consequences of STDs and infertility are so severe that saying that these outcomes are fully justified by “choice” is not sufficient because they aren't the choice of the woman affected. Privacy doesn't cut it under these circumstances. We must be on the side of those who want to become pregnant.

Individual reproductive decisions have cumulative public consequences. As a result, this most private of human endeavors, reproduction, becomes a public matter. Arguments based on choice

do not provide sufficient moral underpinnings to support the exercise of individual choices that may result in seriously negative social and biological consequences for humanity, including increases in sexually transmitted diseases, infertility and anti-female gender discrimination. I don't believe that society can permit its citizens to choose their way to biological disaster.

Humanity has resorted to reproductive technology to overcome fertility and to respond to new reproductive patterns and environment. How do we evaluate whether these technologies are good or helpful or permissible?

I suggest we look at the biological effects of technology. Let's start with hormonal contraception. While effective at preventing pregnancy and providing protection against some cancers, there are less remarked upon unintended consequences.

In mate selection there is some evidence that hormonal contraception interferes with the functioning of our senses in the detection of a compatible MHC—major histocompatibility complex. We naturally seek a mate with a different though compatible MHC in order to have the children have a stronger immune system. There is evidence that this genetic information is conveyed by pheromones and by the sense of smell. Those on the pill tend to favor mates with a similar MHC rather than a different and compatible one. There is evidence that MHC incompatibility can lead to a higher rate of miscarriage.

Hormonal contraception can also lead to greater exposure to and infection by STDs. This is not just because couples using hormonal contraception use fewer condoms, or have more sex, or more partners, or different kinds of sex, it is because there may be physiological changes in the lining of the vagina which increases the risk of infection once exposed. A recent study, done in Baltimore and released in September with the cooperation of

Planned Parenthood, took a prospective look at almost 1000 women in their Baltimore clinics. The women could select their own method of contraception, or not. In fact 354 women selected the pill, 114 selected Depo-Provera (DMPA) and 351 selected no hormonal method. The women were followed up every three months for a year and were examined and tested for Chlamydia and gonorrhea.

There was an **increased risk** of infection 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.

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.

A recent study published in the August issue of the American Journal of Public Health confirms what we already know--that condoms reduce the risk of gonorrhea, Chlamydia and pelvic inflammatory disease. Women in the study always using condoms were half as likely to get a recurring case of PID, which is caused when gonorrhea or Chlamydia travel into the upper genital tract.

Yet we have failed to convince the public to use condoms every time they have sex and in fact the more effective the method of contraception, the less likely couples are to use condoms.

I think we need to come up with a new and balanced evaluation of hormonal contraception. There is now confirmation of the tradeoff between pregnancy prevention and disease acquisition. While this has been known since earlier studies, it has now been confirmed. How do we counsel patients? How do we, as providers, now feel about hormonal contraception? How do we develop new strategies to promote dual method contraception and condom use? Do we abandon trying dual method promotion? Clearly the old strategies are not as effective as we would wish.

Do we have a different standard for hormonal contraception depending on the health care and gender situation in each country? In some countries where childbearing is so risky, should there be a different standard for the use of hormonal contraception than in countries where there is less risk in childbearing and where abortion is readily available? What relevance is the status of women where men often control the use of contraception and women frequently surreptitiously use hidden methods like Depo and the pill? Can hormonal contraception be discouraged and condoms be promoted in such a society where men won't use them?

Studies estimate that one-third to one-half of cases of female infertility are caused by pelvic inflammatory disease. In Africa, the WHO estimated that two-thirds of infertility is caused by STDs.

I believe the framework to approach analyzing this problem is through fertility. Fertility, the ability to have children, is after all the biological purpose of humanity, just like any other species. Hormonal contraception should be evaluated by its ability to promote fertility. This includes the ability to have the children one wants when one wants to have them, and no more than one wants. While men and women each have reproductive interests, women alone bear the risks of childbearing.

STDs have an effect on the reproductive capacity of the

entire society. Arguments in favor of hormonal contraception based on choice are now less persuasive. New thinking is needed. We owe it to our patients and to women and men everywhere.

Biological lines can be drawn in order to defend and protect most reproductive freedom. Some uses of reproductive technologies are unwise and biologically counterproductive. A biological analysis will give proponents of reproductive freedom a principled framework with which to defend that freedom. A biological framework can give the pro-choice movement the means to concede that not all exercises of reproductive freedom are wise and perhaps can not be permitted without undermining the moral basis for that freedom. That is why I oppose sex selection abortion as practiced in China and India since it leads to a severe imbalance in the population. I oppose reproductive cloning because it eliminates sexual reproduction and all of its benefits for humanity. So I do see a limited role for government in matters reproductive.

I believe that governments have an interest in seeing to its citizens reproducing successfully because that is one of the main reasons, if not the main reason, governments were established in the first place.

We must contrast this with the eugenics approach, where governments took sides on who could reproduce and who couldn't, on who should be encouraged to reproduce and who should be discouraged. The lesson of eugenics is not that science has no role in public policy, it is that we bring in the police powers of the state over reproduction at our peril.

The constitutional right to privacy is a bulwark against over-zealous moralists from messing with biology and human evolution. While moral legislation should be permissible, it needs to have a valid reason other than it is thought to be good for society. Without a constitutional right to privacy the government could pass any law

it wished relating to human sexuality and reproduction. Humanity cannot let the majority try to redefine the laws of nature by trying to change how and why and with whom we have sex and reproduce. Reproductive freedom has gotten humanity to where it is today. It is essential for our wellbeing and survival that we keep it.

If there was no reproductive freedom, the dominant elites could control who reproduced and who didn't. They could enact eugenic laws. They could force or mandate birth control, sterilization and abortion in cases that suited them. Reproductive freedom levels the reproductive playing field at least as far as the law is concerned. It gives everyone an equal chance under the law to reproduce. It is especially the poor, the unhealthy and the weak who benefit from reproductive freedom. They more than those with better health and more resources need to control their childbearing. Pregnancy and childbirth are much more fraught with danger for those less healthy and well-to-do.

Without reproductive freedom or a right to privacy the government could enact any law it wished on reproductive matters. Social and biological engineering would be permitted with virtually no restraint. Childbearing could be required or prohibited. Birth control, sterilization, and abortion could be required or prohibited.

What governments, like Romania and China, end up doing is establishing a national reproductive strategy to replace its citizen's individual reproductive strategies. This greatly oversteps the legitimate governmental function of creating and fostering a civil society in which its populace will want to reproduce on its own terms. A national reproductive strategy is an attempt to set national cultural, societal and legal norms for reproduction. When it does this, a government is saying that it cannot leave reproductive decisions to its citizens. This is an entirely new, and I submit,

illegitimate function for government. There is no justification for either Romania to require childbirth or for China to ban it. Both are equally wrong.

This is what *Roe* protects against.

Humanity has demonstrated that it has thrived when each member makes their own reproductive decisions, not when they leave things to chance or nature or when the government, their religion or their culture dictates certain results.

Opponents of birth control and abortion are endeavoring to remove biology and evolution as factors in human behavior. They are trying to establish one set of ground rules for reproduction. They want a pregnancy to be the potential result of each sexual encounter and for each pregnancy to result in the birth of a child, nature permitting. They want all sexual activity and reproduction to occur within marriage. They want men to have more power than they currently do over human reproduction. Opponents of women's control over childbearing believe that they can impose societal and moral rules over biological realities. They believe that strict rules on sexual behavior and restricting reproductive freedom will not hurt, and in fact will help, human reproduction and survival.

Trying to repeal the laws of evolutionary biology is a fool's errand. It is not just wrongheaded; it is dangerous. Abortion opponents cannot repeal the laws of natural selection. These laws favor women who take control over their reproduction. This means natural selection favors women who use birth control and abortion to plan, space and limit their children so that those children have the best chance of reaching adulthood and in turn reproducing. Natural selection favors children with genetic variety. Natural selection works within a particular environment. Life and the environment can change after a woman is pregnant and it may not

be in her reproductive interest to give birth at that time and under those circumstances. Human history has shown that humans make better choices about childbearing, whether made consciously or unconsciously, than governments do. Laws restricting reproductive rights, because they hurt the cause of human life, are not just foolhardy, they are immoral.

I believe there is an opportunity for us to reframe the entire debate over reproductive freedom. Reproductive freedom exists to insure reproductive success. Virtually everyone wants reproductive success. We must be on the side of parents and those who want to be parents. We must be on the side of fertility and not be seen as just preventing fertility. We must be on the side of childbirth, and not just seen as preventing childbirth. Because these are the same women and men at different points in their lives. When we position ourselves as being truly pro-life and explain how reproductive freedom enhances the creation, propagation and nurturance of life, then I believe the American people will vote in their biological interest.

Being biologically pro-life means one must be politically pro-choice.

Thus I am asking the public health community to join me in this effort. We must not be scared that we humanity is part of an evolutionary chain, that natural selection operates on us, that men as well as women want to reproduce and they do it with different strategies and that technology is not always benign. The public health community can lead the way in designing studies to measure impact of the choices humans make on their reproductive success.