

# PIQUE

Newsletter of the Secular Humanist Society of New York

January 2006

Belief and unbelief—their varieties, consequences, and hypocrisies—are our focus this first month of a new and, we hope, happier year, and we begin with a pretty good credo-by-committee of what most of us profess. We revisit the questions of evil and of fundamentalist intransigence, mock the religious right's latest lunacy, the “War on Christmas,” as well as the silliness of “intelligent design,” and we get serious about the future of evolution—our evolution—in the laboratory.

## **WHAT IS SECULAR HUMANISM?**

**Fritz Stevens, Edward Tabash, Tom Hill,  
Mary Ellen Sikes, and Tom Flynn**

Secular Humanism is a term that has come into use in the last thirty years to describe a worldview with the following elements and principles:

A conviction that dogmas, ideologies and traditions, whether religious, political or social, must be weighed and tested by each individual and not simply accepted on faith.

Commitment to the use of critical reason, factual evidence, and scientific methods of inquiry, rather than faith and mysticism, in seeking solutions to human problems and answers to important human questions.

A primary concern with fulfillment, growth, and creativity for both the individual and humankind in general.

A constant search for objective truth, with the understanding that new knowledge and experience constantly alter our imperfect perception of it.

A concern for this life and a commitment to making it meaningful through better understanding of ourselves, our history, our intellectual and artistic achievements, and the outlooks of those who differ from us.

A search for viable individual, social and political principles of ethical conduct, judging them on their ability to enhance human well-being and individual responsibility.

A conviction that with reason, an open marketplace of ideas, good will, and tolerance, progress can be made in building a better world for ourselves and our children.

### ***How Do Secular Humanists View Religious and Supernatural Claims?***

Secular humanists accept a worldview or philosophy called naturalism, in which the physical laws of the universe are not superseded by non-material or supernatural entities such as demons, gods, or other “spiritual” beings outside the realm of the natural universe. Supernatural events such as miracles (in which physical laws are defied) and psi phenomena, such as ESP, telekinesis, etc., are not dismissed out of hand, but are viewed with a high degree of skepticism.

### ***Are Secular Humanists Atheists?***

Secular humanists typically describe themselves as atheist (without a belief in a god and very skeptical of the possibility) or agnostic (without a belief in a god and uncertain as to the possibility). Secular humanists hail from widely divergent philosophical and religious backgrounds, ranging from Christian fundamentalism to liberal belief systems to lifelong atheism. Some have achieved a comfortable secular humanist stance after a period of

deism. Deists are those who express a vague or mystical feeling that a creative intelligence may be, or was at one time, connected to the universe or involved with its creation, but is now either nonexistent or no longer concerned with its operation.

Secular humanists do not rely upon gods or other supernatural forces to solve their problems or provide guidance for their conduct. They rely instead upon the application of reason, the lessons of history, and personal experience to form an ethical/moral foundation and to create meaning in life. Secular humanists look to the methodology of science as the most reliable source of information about what is factual or true about the universe we all share, acknowledging that new discoveries will always alter and expand our understanding of it and perhaps change our approach to ethical issues as well.

### ***What Is The Origin of Secular Humanism?***

Secular humanism as an organized philosophical system is relatively new, but its foundations can be found in the ideas of classical Greek philosophers such as the Stoics and Epicureans, as well as in Chinese Confucianism. These philosophical views looked to human beings rather than gods to solve human problems.

During the Dark Ages of Western Europe, humanist philosophies were suppressed by the political power of the church. Those who dared to express views in opposition to the prevailing religious dogmas were banished, tortured or executed. Not until the Renaissance of the fourteenth to seventeenth centuries, with the flourishing of art, music, literature, philosophy and exploration, would consideration of the humanist alternative to a god-centered existence be permitted. During the Enlightenment of the eighteenth century, with the development of science, philosophers finally began to openly criticize the authority of the church and engage in what became known as “free thought.”

The nineteenth century Freethought movement of America and Western Europe finally made it possible for the common citizen to reject blind faith and superstition without risk of persecution. The influence of science and technology, together with the challenges to orthodoxy by such celebrity freethinkers as Mark Twain and Robert G. Ingersoll brought elements of humanist philosophy even to mainline Christian churches, which became more concerned with this world, less with the next.

In the twentieth century scientists, philosophers, and progressive theologians began to organize in an effort to promote the humanist alternative to traditional faith-based worldviews. These early organizers classified humanism as a non-theistic religion that would fulfill the human need for an ordered ethical/philosophical system to guide one's life, a “spirituality” without the supernatural. In the last thirty years, those who reject supernaturalism as a viable philosophical outlook have adopted the term “secular humanism” to describe their non-religious life stance.

Critics often try to classify secular humanism as a religion. Yet secular humanism lacks essential characteristics of a religion, including belief in a deity and a transcendent order. Secular humanists contend that issues concerning ethics, appropriate social and legal conduct, and the methodologies of science are philosophical and are not part of the domain of religion, which deals with the supernatural, mystical and transcendent.

Secular humanism, then, is a philosophy and worldview that centers upon human concerns and employs rational and scientific methods to address the wide range of issues important to us all. While secular humanism is at odds with faith-based religious systems on many issues, it is dedicated to the fulfillment of the individual and humankind in general. To accomplish this end, secular humanism encourages a commitment to a set of

principles that promote the development of tolerance and compassion and an understanding of the methods of science, critical analysis, and philosophical reflection.

### **THE MORAL LESSON OF GENESIS**

**John Arents**

*(Excerpted from a recent letter by former PIQUE Editor John Arents to his cousin in Denmark.)*

When I referred to “fictitious reality,” I was thinking of fiction presented as truth and expected to be accepted as such. There is nothing wrong with fiction, but if you write a work of fiction and sell it to a publisher as nonfiction, you can go to prison (remember Clifford Irving and the Howard Hughes autobiography). A story intended as fiction by its original author or reciter can come to be believed by later generations. One of the clearest ways to label fiction as such is to include inhuman animals talking or otherwise engaging in uniquely human behavior. Æsop did a lot of it. A fable about a talking snake somehow became the core doctrine of the largest religion in the world. This fable, unlike Æsop’s, does not even have a good moral: You should submit to an authority that tries to restrict your knowledge. This is an example of why religion has always fascinated and puzzled me.

### **SUPERNATURAL KNOWLEDGE AND THE SEARCH FOR TRUTH**

**Gilbert Murray**

*(Excerpted from Five Stages of Greek Religion by Gilbert Murray (1866-1957). Murray was a distinguished classical scholar and translator of ancient Greek into English. He was also, just after WW2, one of the founders of Oxfam.)*

There is no royal road in these matters. I confess it seems strange to me as I write here, to reflect that at this moment many of my friends and most of my fellow creatures are, as far as one can judge, quite confident that they possess supernatural knowledge. As a rule, each individual belongs to some body that has received in writing the result of a divine revelation. I cannot share in any such feeling. The Uncharted surrounds us on every side and we must needs have some relation towards it, a relation that will depend on the general discipline of a man’s mind and the bias of his whole character. As far as knowledge and conscious reason will go, we should follow resolutely their austere guidance. When they cease, as cease they must, we must use as best we can those fainter powers of apprehension and surmise and sensitiveness by which, after all, most high truth has been reached as well as most high art and poetry: careful always really to seek for truth and not for our own emotional satisfaction, careful not to neglect the real needs of men and women through basing our life on dreams; and remembering above all to walk gently in a world where the lights are dim and the very stars wander.

### **GIVING CREDIT TO THE ALMIGHTY POWER**

**Sir David Attenborough**

*(Reprinted from December, 2005 Fig Leaves, the newsletter of the Free Inquiry Group in Cincinnati. Sir David is author of Life on Earth and The Living Planet. These remarks are transcribed from an interview on the BBC.)*

I often get letters, quite frequently, from people who say how they like my programs a lot, but I never give credit to the Almighty Power that created nature. To which I reply and say, “Well, it’s funny that the people, when they say that this is evidence of the Almighty, always quote beautiful things, they always quote the orchids and hummingbirds and butterflies and roses.”

But I always have to think of a little boy sitting on the banks of a river in West Africa who has a worm boring through his eyeball, turning him blind before he’s five years old, and I reply and say, “Well, presumably the God you speak about created the worm as well,” and now, I find it baffling to credit a merciful God with that action, and therefore it seems to me safer to show things that I know to be the truth, truthful and factual, and allow people to make up their own minds about the moralities of this thing, or indeed the theology of this thing.

### **THIS I BELIEVE: I BELIEVE THERE IS NO GOD**

**Penn Jillette**

*(Excerpted from December, 2005 Fig Leaves, the newsletter of the Free Inquiry Group in Cincinnati. Penn Jillette is the taller, louder half of the magic and comedy act Penn & Teller. He is a research fellow at the Cato Institute and has lectured at Oxford and MIT. These remarks were made on NPR’s Morning Edition, 11/21/05.)*

I believe that there is no God. I’m beyond Atheism. Atheism is not believing in God. Not believing in God is easy—you can’t prove a negative, so there’s no work to do. You can’t prove that there isn’t an elephant inside the trunk of my car. You sure? How about now? Maybe he was just hiding before. Check again. Did I mention that my personal heartfelt definition of the word “elephant” includes mystery, order, goodness, love and a spare tire?

So, anyone with a love for truth outside of herself has to start with no belief in God and then look for evidence of God. She needs to search for some objective evidence of a supernatural power. All the people I write e-mails to often are still stuck at this searching stage. The Atheism part is easy.

But, this “This I Believe” thing seems to demand something more personal, some leap of faith that helps one see life’s big picture, some rules to live by. So, I’m saying, “This I believe: I believe there is no God.”

Having taken that step, it informs every moment of my life. I’m not greedy. I have love, blue skies, rainbows and Hallmark cards, and that has to be enough. It has to be enough, but it’s everything in the world and everything in the world is plenty for me. It seems just rude to beg the invisible for more. Just the love of my family that raised me and the family I’m raising now is enough that I don’t need heaven. I won the huge genetic lottery and I get joy every day. ...

Believing there’s no God stops me from being solipsistic. I can read ideas from all different people from all different cultures. Without God, we can agree on reality, and I can keep learning where I’m wrong. We can all keep adjusting, so we can really communicate. I don’t travel in circles where people say, “I have faith, I believe this in my heart and nothing you can say or do can shake my faith.” That’s just a long-winded religious way to say, “Shut up,” or another two words that the FCC likes less. But all obscenity is less insulting than, “How I was brought up and my imaginary friend means

more to me than anything you can ever say or do.” So, believing there is no God lets me be proven wrong, and that’s always fun. It means I’m learning something.

Believing there is no God means the suffering I’ve seen in my family, and indeed all the suffering in the world, isn’t caused by an omniscient, omnipresent, omnipotent force that isn’t bothered to help or is just testing us, but rather something we all may be able to help others with in the future. No God means the possibility of less suffering in the future.

Believing there is no God gives me more room for belief in family, people, love, truth, beauty, sex, Jell-O and all the other things I can prove and that make this life the best life I will ever have.

### **A CHRISTIAN FUNDAMENTALIST PRAYS AT HIS NEIGHBOR**

*(Anonymous Internet ditty forwarded by Fitz Fitzstephens)*

I know you smoke, I know you drink that brew,  
I just can’t abide a sinner like you.

You know,

God can’t either, that’s why I know it to be true,  
That Jesus loves me, but he can’t stand you.

### **DOING THE LORD’S WORK (WHEN IT SUITS)**

**Samuel Milligan**

Selective obedience to scriptural law is the norm, particularly among Christians. The New Testament is full of various restrictions, but no one pays any real attention to the inconvenient ones. For instance, according to Mark 13:17, Jesus says that a woman who finds herself pregnant when the last trumpet announces the end of the world will be in deep, deep trouble. Now in my long life I have never ever come across any woman who hesitated to get pregnant because of any fear of the apocalypse. (One would think that, because of this, the Roman Catholics and Eastern Orthodox would embrace birth control as something that would put fewer ladies in the way of eternal damnation. But no.)

Another example. Christians are told that if someone smites them on the cheek, they should offer the other side of their face for another smack. But I have the feeling that if I went, say, into any Christian church on Sunday morning, walked up to a Christian at random and slapped his face, I would find this particular commandment to be currently in abeyance, a fact on which I could meditate while being hauled to the precinct house (with a very probable detour by way of the hospital).

On the other hand, the Pauline hatred of homosexuals (Romans 1:24, I Corinthians 6:9) is enthusiastically endorsed by many Christians. It would appear that cruelty to others is clearly fun, since bigots embrace it with such joyous abandon. I recall that some years ago in Dallas, an old lady used to march alongside the yearly Gay Pride parade, bearing a sign that brought to our attention the fact that “God calls for the death of all homosexuals.”

Of course, far from being shamed, this just incited more outrageous behavior among the marchers, a regular shark-frenzy of kissing, playing grab-ass and the like. This doubtless reaffirmed the decadence of homosexuals in the old lady’s mind, and she could entertain the friends in her prayer group for the whole year with a righteous description

for such nastiness. I'm sure she thought she was doing it out of a moral obligation, but actually, I think she was doing it for the pleasure. It's fun to have a cause, especially if it furnishes an excuse to hurt somebody else while maintaining a clear conscience.

It also didn't hurt her sense of vanity to make a stellar (if brief) appearance year after year on the 6:00 p.m. newscast, letting the whole television audience see her devotion to doing God's work.

You may worship any god you like, believe in whatever gets you through the night, as long as it doesn't keep me awake. — Donna Marxer

### **HOW ABOUT "EQUAL TIME" FOR ALL RELIGIONS EQUALS "NO TIME"?**

**Michael Deanhardt**

*(Excerpted from The Voice of Sanity, newsletter of The Upstate South Carolina Secular Humanists, Nov., 2005)*

The growing number of Americans who are followers of Islam demonstrates the pitfalls of mixing religion and government. The largest population of Arab-Americans lives in the Detroit metro area. Approximately 135,000 of the 270,000 Arab-Americans in the area are Islamic. The Islamic community has been successful in gaining approval to use city loudspeakers in Hamtramck, a city within Detroit, to issue the traditional calls to prayer. In Dearborn, the Islamic community has asked the City Council to authorize two Islamic holy days as official city holidays. It does not take rocket science to see where this trend is going. If a governmental unit authorizes holy days for one religion, why not all religions? Isn't government supposed to treat all citizens and religions equally? Should a religion's size, wealth, political influence or number of adherents gain it more clout in having its religious beliefs and holidays officially recognized by the government? If the government decides to recognize the holidays of a particular religion to the exclusion of all others, is this not de facto endorsement? The growing diversity of our country ... makes it impossible for the government to recognize the growing demands for "equal time" for all the religions in America. That is why the best solution is for government to be completely neutral in this area and neither endorse, support or repress any religious faith as the First Amendment to the Constitution clearly requires.

### **SMUT FOR SMUT**

*(From Harper's Weekly, 12/6/05, and XbizNews.com, 12/2)*

In imitation of the "Toys for Guns" programs (turn in a gun, get a toy for a kid) police departments have run in several cities, a student group at the University of Texas at San Antonio called The Atheist Agenda started an exchange program called "Smut for Smut," handing out soft-core pornography like Playboy in the Student Union to anyone who turned over a Bible. "We consider the Bible to be a negative force in the history of the world," said an involved student. The group is not officially sanctioned by the university and has raised the ire of several religious organizations on campus.

"In my opinion, there are no atheists. There are fools," Pastor Rick Hawkins of UTSA's Family Praise Center said. "I don't know one believer that would take his Bible and turn it in for pornography." Hawkins obviously didn't stop by the Atheist Agenda

table, where several students dropped off copies of the good book and walked away with skin mags.

## **YES, THERE IS A WAR ON CHRISTMAS, AND AMERICA HAS TO WIN IT**

**Sam Seder**

*(A rough transcript of Seder's remarks made during a CNN interview/debate about the so-called "War on Christmas.")*

CNN: Sam, is there a "War On Christmas"?

Seder: I believe we *should* be waging a War On Christmas. I believe—it's almost proven—that Christmas has nuclear weapons, it can be an imminent threat to this country, and that it has operational ties with terrorists. I believe we should sacrifice thousands of American lives in pursuit of this War On Christmas, and hundreds of billions of taxpayer dollars.

CNN: Well Sam, is it a war on Christmas, a war on Christians, a war over political correctness, or just a lot of people who have way too much time on their hands?

Seder: Well, if I were to be serious, I'd have to go with too much time on their hands. But I'd like to get back to the operational ties between Santa Claus and Al Qaeda.

CNN: I don't think that exists.

Seder: We have intelligence.

CNN: You have intel? And where did that come from?

Seder: We tortured an elf.

## **BUSH MEETS ST. PETER**

**Nicholas D. Kristof**

*(Excerpted from his column in The NYTimes 12/11/05)*

If a meteorite crashed down on the White House today, the conversation at the Pearly Gates might go something like this.

"Oh-h-h. Where am I? St. Peter?"

"Welcome, Mr. President, I just need to see if you belong here."

"Well, St. Peter, you know I'm a born-again Christian. I pray every day. I'm very religious. I brought Bible study classes to the White House."

"Terrific. And have you helped any lepers lately?"

"Not exactly. But my cuts in the top tax rates will create wealth that will trickle down and help lepers. I'm getting there indirectly, instead of barging through the eye of a needle. ... And I've been upstanding in defending Christian values. ... We sent out 1.4 million White House Christmas cards."

"Wow! But I don't suppose any Christmas cards went to lepers. Or to prostitutes or beggars."

"I don't send cards to Democrats."

"Mr. President, our checklist doesn't have anything about Christmas cards or trees. It's about feeding the hungry, clothing the naked and housing the homeless."

"Well, [we] spent \$8,000 for a drapery to cover up a breast of a female statue. That was clothing the naked."

“We get irritated with religious blowhards who proclaim that faith is a matter of covering up, saying grace, looking dour and denouncing others—the Taliban approach—denouncing others instead of loving them.”

“But St. Peter, they’re just trying to put Christ back in Christmas. They see how faith is threatened by people saying ‘Happy Holidays,’ instead of ‘Merry Christmas.’”

“Frankly, Mr. President, here in Heaven, I say ‘Merry Christmas,’ but others prefer ‘Happy Holidays.’ Gandhi prefers it. And a Jewish rabbi told me that his family felt more comfortable with that as well ...”

“But St. Peter, that’s one rabbi ...”

“Whose name is Jesus.”

“Oops.”

### **VOICE OF GOD REVEALED TO BE CHENEY ON INTERCOM**

*(As reported in The Onion satirical weekly, 12/7/05)*

Telephone logs recorded by the National Security Agency suggest the Vice President may have used the Oval Office intercom system to address President Bush at crucial moments, giving categorical directives in a voice the president believed to be that of God.

In a transcript of an intercom exchange recorded in March 2002, a voice positively identified as the Vice President’s identifies himself as “the Lord thy God” and promotes the invasion of Iraq, as well as the use of torture.

Bush’s senior advisers are trying to shield the president from the news. “It’s hard to tell the leader of the free world that he has been the butt of an elaborate and long-term ruse,” a former staffer said. “Maybe it would be easier to take if it came from Cheney’s God voice.”

### **CONTROVERSY? WHAT CONTROVERSY? David Rafferty**

In a nationwide USA Today/CNN/Gallup poll taken Nov 11-13, 56% of respondents said abortion should be legal under certain circumstances; 26% legal under any circumstance; and only 16% thought it should be illegal in all circumstances.

So 16% of Americans want to make abortion illegal, while 82% are at least okay with it. When will the religious right finally fess up that its base is relatively small and generally out of step with most Americans?

But maybe hypocrisy is exactly why another poll, this one from the National Opinion Research Center at the University of Chicago, which measured public confidence in the leadership of selected institutions, found only one in four Americans had a “great deal” of confidence in the leaders of organized religion.

Confidence in leadership of Organized Religion: Great deal - 24; Only some - 52; Hardly any - 22%

So, three-quarters of Americans are ambivalent or negative in their feelings toward religious leadership.

Interesting.

### **EVIL? WHAT – OR WHO – IS EVIL? Chic Schissel**

I just got December PIQUE and saw the discussion of “Good and Evil” by Austin Dacey. I also read two stories in today’s *NYTimes* (12/2/05), and all of this was thought provoking.

One *Times* story was an obit of Hermine Braunsteiner Ryan, who died six years ago. In her early twenties she was a guard at the Nazi death camp at Maidanek. Survivors told of her “whipping women to death, seizing children by the hair and throwing them on trucks to take them to the gas chamber, kicking away a stool to hang a young girl, and stomping old women to death with her jackboots ... she was ‘The Stomping Mare’.”

She married an American in 1958, moved to Queens and became a citizen. The Nazi hunter Simon Wiesenthal tracked her down and she was exposed in 1964. Her neighbors couldn’t believe her gruesome past; she was known for her careful housekeeping and friendly manner. In 1973 she was extradited to Germany and ultimately convicted and imprisoned. The other *Times* story was about a man convicted of four brutal murders and finally scheduled to be executed this month. He has spent 24 years on California’s Death Row; his last hope is that Governor Schwarzenegger will commute his sentence to life imprisonment.\* He claims innocence of the murders but admits that his background was “despicable,” that he was a criminal gang leader and a “nihilist.” In prison he has written books and published methods for rival gangs to work peacefully. He lectures youth groups by telephone, and works with the NAACP to create a violence-prevention message for at-risk youth.

Both these stories seem to illustrate a foundation of pure evil that was somehow apparently transformed into productive civilized behavior. The question is: are people born evil, or made evil?

I incline toward the latter explanation. Some people may be born with more of a genetic inclination toward evil, but I think environment by far plays the major role. How many of us truly believe that, coming from a background of Nazi or street gang indoctrination, we would have behaved well? I well remember screaming “*Kill those \*\*\*\*\*!!! Japs*” after Pearl Harbor, when I was thirteen. Had I been indoctrinated in Nazi Germany, I might have become another brutal death camp guard; I have no illusions about any inherited sainthood.

Humans are what they are. The same genes that enabled us to survive the Neanderthals and the saber-tooth tigers may ultimately cause us to self-destruct— unless we somehow manage to construct a wiser and better-functioning society.

\* *Schwarzenegger did not. Stanley Tookie Williams was executed December 13.*

## **HEAVEN CAN WAIT. PLEASE.**

**Russell Dunn**

1. Most people who believe in God believe in Heaven.
2. Of those, virtually all believe Heaven is paradise.
3. And believe the only way to get to Heaven is by dying.
4. When confronted with death, however, like non-believers they will do anything to avoid it, and will wail when “acts of God” call people to Heaven quickly.
5. But if Heaven is their goal, shouldn’t they be trying to get there with the least possible delay?
6. So ... why aren’t they all trying to die?

**THEY WILL NOT CHANGE,  
THOUGH CHILDREN SICKEN AND DIE**

**John Rafferty**

From *The NYTimes* 12/14/05: “City health officials said yesterday that they had identified two new cases in which infants were infected with herpes this year during a circumcision ritual practiced by some Orthodox Jews. During the circumcision, the practitioner, or *mohel*, sucks the blood from the circumcision wound to clean it. Since 1988, health officials have identified at least five infants believed to have been infected during such procedures by Type 1 herpes, commonly carried by adults. One baby died and another may have suffered brain damage.”

And, as reported in the August 26 *Times* and excerpted in October PIQUE, Mayor Bloomberg met with Orthodox leaders—to try to persuade them to consider entering the 21st century, we assume—and was told by one of their spokesman, Rabbi David Niederman, “The Orthodox Jewish community will continue the practice that has been practiced for over 5,000 years. We do not change, and we will not change.”

What the hell, it’s only five kids, and only one died.

**ARE YOU LISTENING, RABBI NIEDERMAN?  
ARE YOU LISTENING, POPE BENEDICT?**

**Tenzin Gyatso, the 14th Dalai Lama**

If science proves some belief of Buddhism wrong, then Buddhism will have to change. ... After all, if practices from my own ... tradition can be brought together with scientific methods, then we may be able to take another small step toward alleviating human suffering.

**LIVE LONGER WITH EVOLUTION?**

**Claudia Dreifus**

*(Excerpted from “A Conversation With Michael R. Rose,” in the NYTimes, 12/6/05)*

In the 1970s, Michael R. Rose made scientific history with experiments manipulating the life spans of fruit flies. Through selective breeding, Dr. Rose was able to create a long-lived line of creatures he called Methuselah flies.

Q: You are an evolutionary biologist. As a researcher trained mostly in Canada and England, are you astonished by the American battles over Darwinism?

A: Not since coming to California. In 1987, the first day I ever gave a class at Irvine, there was a riot in my classroom. I was introducing evolution, and pandemonium broke out—yelling, students pounding the tables. That was the day I learned about evolution in America.

Recently, I was watching President Bush speak on the potential bird flu epidemic. Pandemic bird flu is exactly a question of evolutionary biology because grave danger will come only if the virus evolves into a form that can spread from human to human.

Of course, Bush couldn’t use the word evolution. The virus would “develop” the ability to move from human to human. He couldn’t use the word evolve because that’s a dangerous word. People in the U.S. probably don’t realize they risk their lives by rejecting evolutionary biology. In the case of avian flu, this could kill people very directly. With aging, the essential tools for solving it are located in evolutionary biology.

Q: Why do scientists need to embrace evolution to do longevity research?

A: Because the common assumption is that young bodies work and then they fall apart during aging. Young bodies only work because natural selection makes them healthy enough to survive and breed.

As adults get older, natural selection stops caring about them, so we lose its benefits and our health. If you don't understand this, aging research is an unending riddle that goes around in circles. ... My experiment was to let my flies reproduce only at late ages. This forced natural selection to pay attention to the survival and reproductive vigor of the flies through their middle age.

The flies evolved longer life spans and greater reproduction over the next dozen generations. This showed that natural selection was really the ultimate controller of aging, not some piece of biochemistry. ... Aging isn't some general breakdown process, like the way cars rust. Aging is an optional feature of life. And it can be slowed or postponed.

This implies that controlling human aging does not require the violation of some absolute scientific law. Postponing human aging is not like building a perpetual motion machine or faster-than-light space travel. It is a scientifically reasonable thing to try.

This doesn't mean it will be easy, or even that it is the best thing to do with our medical resources. But it's not a completely crazy idea.

Q: How did you stop fruit flies from breeding?

A: By discarding their eggs. In my experiment, only those females who reached 50 days of age were allowed to breed. Obviously, only those females who lived that long, and who could still breed, contributed offspring to the next generation. After about 12 generations, you had longer-lived flies.

Sometimes, journalists have said to me, "Wow, this is what all my friends are doing," and I said, "Right, that's why it's called the career woman experiment." If everybody is like the female neurologist who waits until she is established in her profession before she reproduces, and this goes on for generations, then we will evolve longer life spans—very slowly.

It would take centuries to get a really significant effect. Long before that ever happens, we will have medical interventions that will be far superior.

Q: Do you believe there is such a thing as a limited life span for humans?

A: No. Life span is totally tunable. In my lab, we tune it up and down all the time. And it's quite clear that the human primate life span got tuned up by evolution over the course of the last few million years. Almost certainly, we once had the life span of chimpanzees—which is half of what humans have. But we were smarter, able to kill our predators, make deadly tools, find more food, so evolution took us in hand, and we lived longer.

Q: What will it take to increase human life span from present levels?

A: There's not going to be one magic bullet where you take one pill or manipulate one gene and live to 500. But you could take a first step, then another so that in 50 years, people take 50 or 60 pills and they live to be 200.

Leaving aside F.D.A. approval, it looks like we are about 5 to 10 years away from therapies that would add years to our present life span. For now, pharmaceuticals will be the primary anti-aging therapy.

After another 10 years or so, the implantation of cultured tissues will become common—especially skin and connective tissues. Reconstructive surgery is certain to become more effective than it is today.

Eventually, we will be able to culture replacement organs from our own cells and repair damage using nanotech machines. All of this will increase life span.

Q: What does religion have to say about all this?

A: That depends on the religion. About five years ago I was at a meeting convened by the Templeton Foundation to address the ethical question of postponing human aging, and in particular, the possibility of biological immortality, as opposed to immortality in heaven.

The Christian theologians at this meeting were clearly horrified whereas the Jewish theologian was saying, “Yes, we like this.” In East Asian cultures, you have a split between the Confucian tradition, which is very much for self-sacrifice, versus the Taoist tradition, which very much espouses the idea of living longer.

## THE INTELLIGENT DESIGN OF PENGUINS

Steve Mirsky

(Excerpted from “*AntiGravity*” in Nov. Scientific American)

First there was the oxymoronic, and just plain moronic, creation science, which says that biblical creation, not evolution, accounts for all life on earth. Creation science begat the more subtle intelligent design (ID), which holds that life is too complex to have evolved naturally—a designer (identity a secret, but it rhymes with Todd) must have done it, producing wonders like the flagellum, that whippy tail some bacteria have, and both Angelina Jolie and Jennifer Aniston.

On September 13, the *New York Times* ran an article that discussed how the documentary *March of the Penguins* was a big hit among some groups because of the lessons it imparted. A reviewer in *World Magazine* thought that the fact that any fragile penguin egg survived the Antarctic made a “strong case for intelligent design.” Conservative commentator Michael Medved thought the movie “passionately affirms traditional norms like monogamy, sacrifice and child rearing.” ...

Penguins are not people, despite their natty appearance and upright ambulation. Their traditional norms include waddling around naked and regurgitating the kids’ lunch. But it would be as absurd to castigate them for those activities as it is to congratulate them for their monogamy. Besides, the movie clearly notes that the penguins are *seasonally* monogamous—like other movie stars usually reviled by moralists, the penguins take a different mate each year. And there are problems with them as evidence of intelligent design. While caring for the egg, the penguins balance it on their feet against their warm bodies; if the egg slips to the ground for even a few seconds, it freezes and cracks open. A truly intelligent design might have included internal development, or thicker eggshells, or Miami. Finally penguin parents take turns walking 70 miles to the sea for takeout meals.

The *birds* have to *walk*.

## DOONESBURY ON INTELLIGENT DESIGN

Garry Trudeau

(Cartoon captions copied from the Sunday News, Dec. 18)

Scene: Doctor showing an X-ray to his patient.

Patient: *TB?* My God! Are you sure?

Doctor: Afraid so. But we caught it early.

Patient: So, my prognosis is good.

Doctor: Depends. Are you a creationist?

Patient: Why yes, yes I am. Why do you ask?

Doctor: Because I need to know whether you want me to treat the TB bug as it was before antibiotics ... or as the multiple-drug-resistant strain it has since evolved into.

Patient: *Evolved?*

Doctor: Your choice. If you go with the Noah's Ark version, I'll just give you streptomycin.

Patient: Um ... what are the newer drugs like?

Doctor: They're intelligently designed.