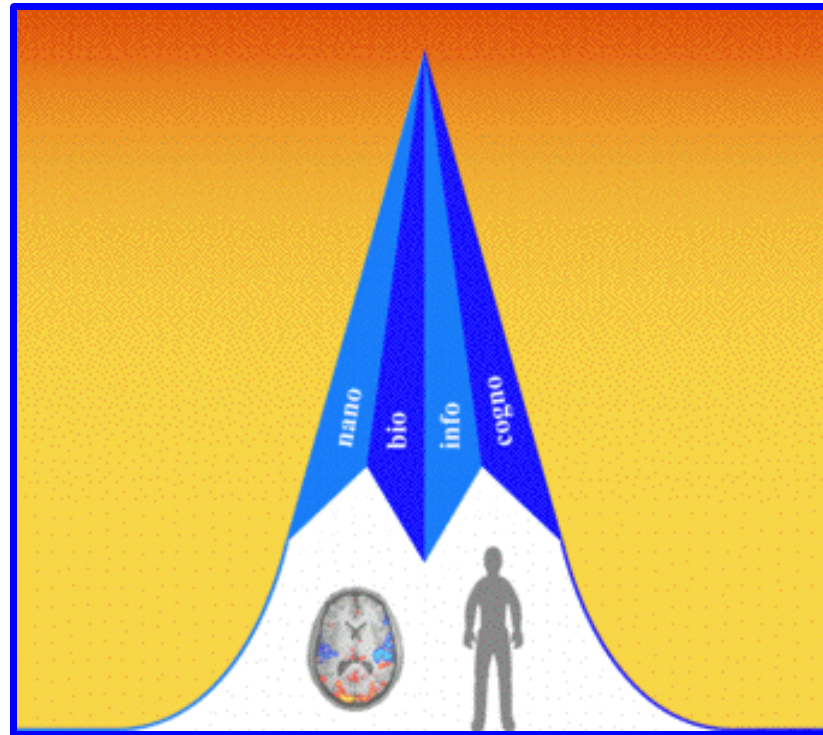


# Across the Abyss

“Man is a rope stretched between the animal and the Superman – a rope over an abyss.” *Thus Spake Zarathustra*



William Sims Bainbridge, Ph.D.  
[mysite.verizon.net/wsbainbridge](http://mysite.verizon.net/wsbainbridge)

**THIS TALK DRAWS UPON:**

***The Secular Abyss* (Lexington Books, 2007)**

***Nanoconvergence* (Prentice-Hall, 2007)**

**And a future book project:**

***Personality Transfer***

**Plus**

**Numerous Short Works**

# Transhumanism

...is not an option, but a necessity.



If we do not evolve,  
we will become subhuman.

## PROBLEMS...?

1. Demographic decline in advanced industrial nations
2. Possibility of deep religious polarization
3. Danger of Neo-Fascism in USA, China, India
4. Halt in scientific and technical progress
5. Possible banning of Transhumanism

## QUESTIONS...?

1. To what extent should Transhumanists work within the system?
2. What kinds of alternative social structures should Transhumanists create?

# Finland: Demography

**Population:**



5,231,372 (July 2006 est.)

**Population growth rate:**



0.14% (2006 est.)

**Birth rate:**



10.45 births/1,000 population (2006 est.)

**Death rate:**



9.86 deaths/1,000 population (2006 est.)

**Total fertility rate:**



1.73 children born/woman (2006 est.)

<https://www.cia.gov/cia/publications/factbook/geos/fi.html>



# Fertility Rates

1.39



1.28



1.28

**2.10 Children-Born/Woman Required for Stability**

# European Union



Birth rate: 10.0  
births/1,000

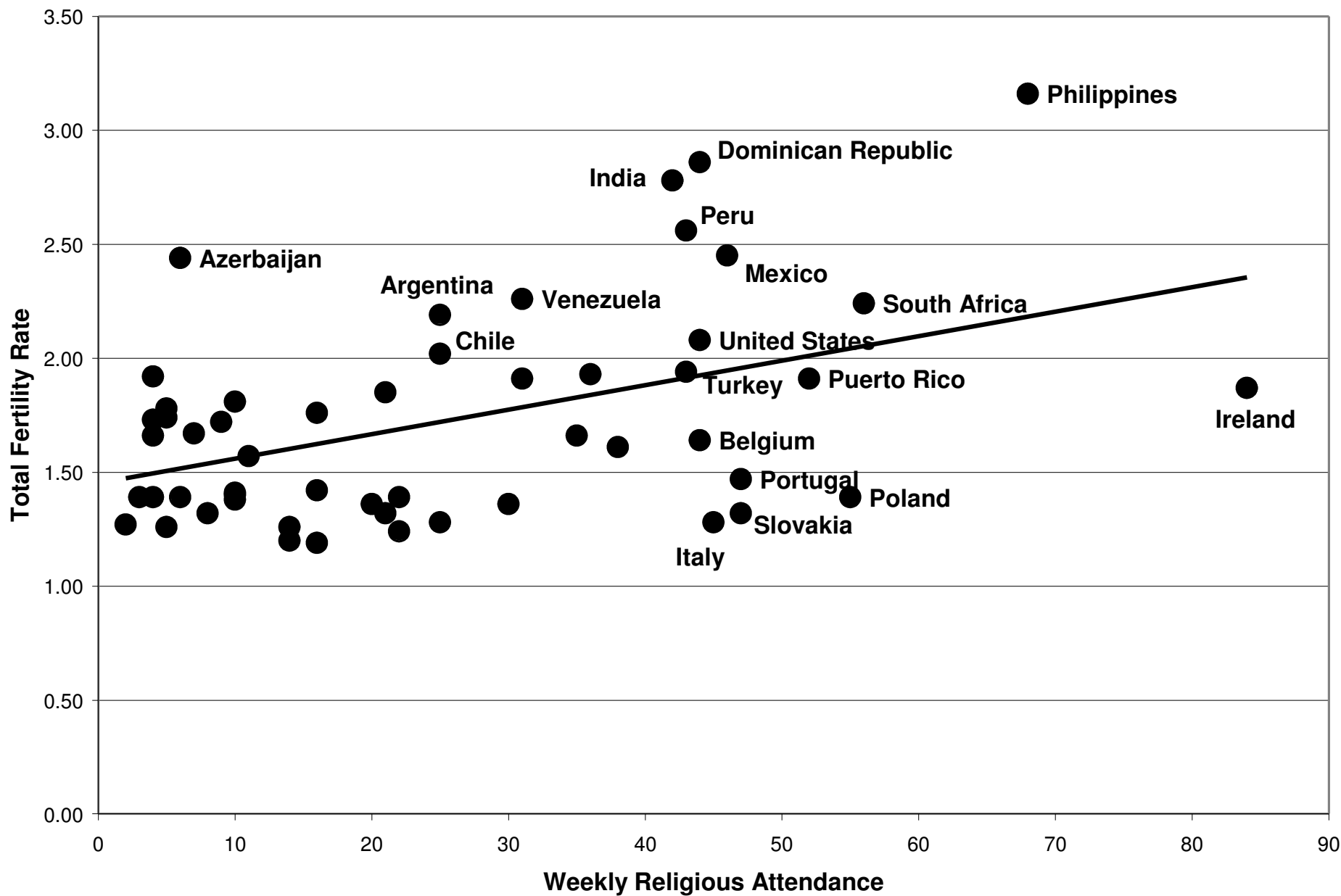
Death rate: 10.1  
deaths/1,000

Fertility rate: 1.47  
children born  
per woman

<b>Rank</b>	<b>Nation</b>	<b>July 2005 Population</b>	<b>Birth Rate</b>	<b>Death Rate</b>	<b>Migration Net Rate</b>	<b>Fertility</b>
1	China	1,306,313,812	13.14	6.94	-0.40	1.72
2	India	1,080,264,388	22.32	8.28	-0.07	2.78
European Union		456,953,258	10.00	10.10	1.50	1.47
3	United States	295,734,134	14.14	8.25	3.31	2.08
4	Indonesia	241,973,879	20.71	6.25	0.00	2.44
5	Brazil	186,112,794	16.83	6.15	-0.03	1.93
6	Pakistan	162,419,946	30.42	8.45	-1.67	4.14
7	Bangladesh	144,319,628	30.01	8.40	-0.69	3.13
8	Russia	143,420,309	9.80	14.52	1.03	1.27
9	Nigeria	128,765,768	40.65	17.18	0.27	5.53
10	Japan	127,417,244	9.47	8.95	0.00	1.39
11	Mexico	106,202,903	21.01	4.73	-4.57	2.45
12	Philippines	87,857,473	25.31	5.47	-1.49	3.16
13	Vietnam	83,535,576	17.07	6.20	-0.43	1.94
14	Germany	82,431,390	8.33	10.55	2.18	1.39
15	Egypt	77,505,756	23.32	5.26	-0.22	2.88



<b>Rank</b>	<b>Nation</b>	<b>July 2005 Population</b>	<b>Birth Rate</b>	<b>Death Rate</b>	<b>Migration Net Rate</b>	<b>Fertility</b>
16	Ethiopia	73,053,286	38.61	15.06	0.00	5.33
17	Turkey	69,660,559	16.83	5.96	0.00	1.94
18	Iran	68,017,860	16.83	5.55	-2.64	1.82
19	Thailand	64,185,502	15.70	7.02	0.00	1.88
20	Congo, DR	60,764,490	44.38	14.43	-0.17	6.54
21	France	60,656,178	12.15	9.08	0.66	1.85
22	United Kingdom	60,441,457	10.78	10.18	2.18	1.66
23	Italy	58,103,033	8.89	10.30	2.07	1.28
24	Korea, South	48,640,671	10.08	6.26	0.00	1.26
25	Ukraine	46,996,765	10.49	16.42	-0.38	1.40
26	Burma	46,996,558	18.11	12.15	-1.80	2.01
27	South Africa	44,344,136	18.48	21.32	-0.22	2.24
28	Colombia	42,954,279	20.82	5.59	-0.31	2.56
29	Spain	40,341,462	10.10	9.63	0.99	1.28
30	Sudan	40,187,486	35.17	9.16	-0.02	4.85



US General Social Survey: What you believe about God...	Four or More Children		No Children	
	Respondents	Desirable	Respondents	Desirable
I don't believe in God.	16	6.3%	16	37.5%
I don't know whether there is a God and I don't believe there is any way to find out.	51	19.6%	48	20.8%
I don't believe in a personal God, but I do believe in a Higher Power of some kind.	105	22.9%	101	17.8%
I find myself believing in God some of the time, but not at others.	57	31.6%	53	37.7%
While I have doubts, I feel that I do believe in God.	244	30.7%	241	17.0%
I know God really exists and I have no doubts about it.	785	43.3%	761	16.4%

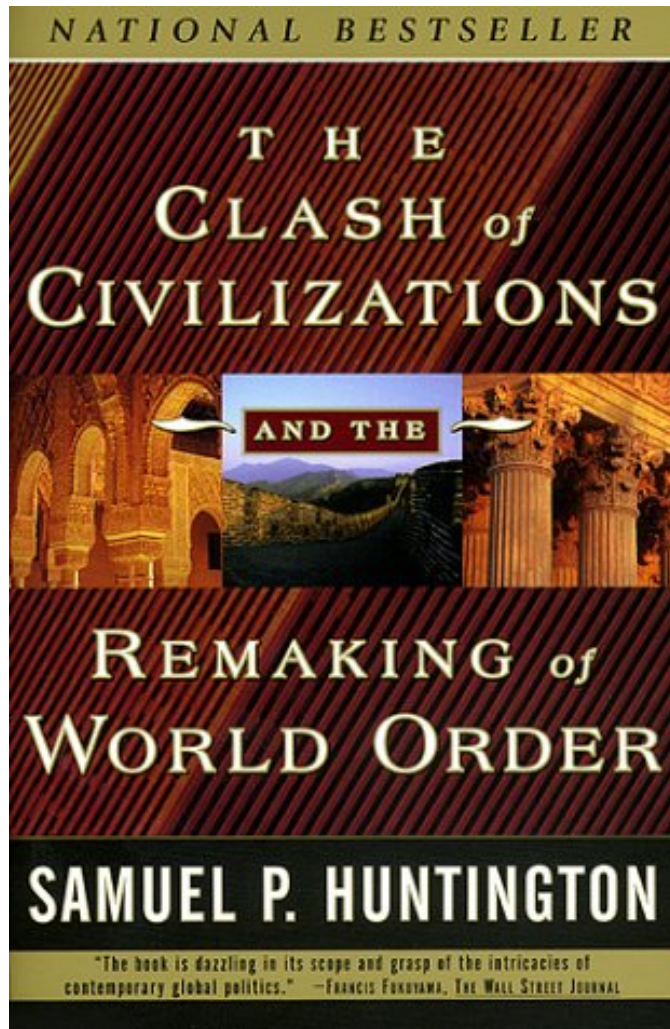
# Fertility and Stupidity

Verbal Intelligence Test Score (0 through 10)

Ideal Number of Children

	0	1	2	3	4	5	6	7	8	9	10	ROW TOTAL
0	.0 0	.0 0	.0 0	.0 0	.0 0	1.0 3	1.0 4	1.5 4	.6 1	1.5 2	2.1 2	.9 16
1	.0 0	.0 0	.0 0	3.3 3	1.2 2	1.7 5	1.3 5	2.3 6	1.8 3	3.1 4	4.2 4	1.9 32
2	47.1 8	37.9 11	53.1 26	46.7 42	53.5 91	52.2 153	58.6 225	56.5 147	60.0 102	62.6 82	63.2 60	56.1 947
3	17.6 3	27.6 8	22.4 11	28.9 26	26.5 45	31.1 91	25.8 99	25.4 66	23.5 40	25.2 33	20.0 19	26.1 441
4	29.4 5	24.1 7	18.4 9	15.6 14	17.1 29	11.6 34	11.2 43	12.3 32	11.8 20	6.9 9	6.3 6	12.3 208
5	5.9 1	10.3 3	.0 0	4.4 4	.6 1	1.7 5	1.0 4	1.5 4	1.2 2	.8 1	3.2 3	1.7 28
6	.0 0	.0 0	4.1 2	.0 0	.0 0	.7 2	.5 2	.4 1	.6 1	.0 0	.0 0	.5 8
7	.0 0	.0 0	2.0 1	1.1 1	1.2 2	.0 0	.5 2	.0 0	.6 1	.0 0	1.1 1	.5 8
	100.0 17	100.0 29	100.0 49	100.0 90	100.0 170	100.0 293	100.0 384	100.0 260	100.0 170	100.0 131	100.0 95	100.0 1,688

# Islam versus Christendom?



If Islam secularizes, it will lose fertility, too (e.g. Turkey).

Christendom is already too secular, so only very powerful fundamentalist revival could restore fertility (cf. Italy, Spain).

In the US, significant political realignment is transforming the Republican Party into the party of big (imperial) business allied with fundamentalism.

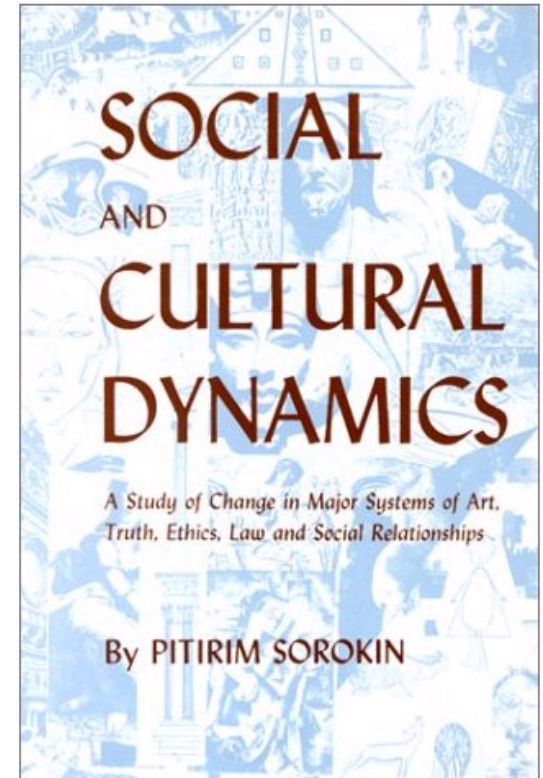
“...that ultimate nightmare: a clash of civilizations.” Indonesian President Susilo Bambang Yudhoyono, August 3, 2006

# Pitirim Sorokin's theory

A cyclical theory of the rise and fall of civilizations: A civilization arises in an *ideational* phase based on powerful spiritual beliefs, and falls when it becomes *sensate* (or materialistic). Islamic Fundamentalism is ideational; secular Europe is sensate.



Implication: in opposing radical Islam, we prevent the renewal of a civilization, even as our own Western civilization gradually falls.



<b>Attitudes:</b>	<b>Toward Atheists</b>		<b>Toward Jews</b>	
	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>
Very favorable	4.8%	4.5%	15.2%	20.1%
Mostly favorable	33.4%	26.4%	58.5%	56.9%
Mostly unfavorable	24.9%	21.4%	7.4%	5.1%
Very unfavorable	25.2%	35.7%	2.8%	1.3%
Never heard of	0.2%	0.0%	0.3%	0.2%
Can't rate	9.3%	10.7%	12.5%	14.3%
Refused to answer	2.2%	1.4%	3.4%	2.2%
Total	100%	100%	100%	100%
Respondents	497	561	922	1080

**2002 American Religion in Public Life Survey**

# Prerequisites for Fascism

A major nation, in the midst of modernization, politically disorganized, suffering economic hardship, losing a war....?



...OR: A society that historically grew through conquest institutionalizes Fascism at the peak of its success:





# What is Fascism?



Not simply militarism, but a form of authoritarian government organized in terms of functional sectors.

“Industrial feudalism?”



“Fasces” – the bundle of axes carried by Roman lictors as a symbol of state authority. The symbols flanking the flag in the US House of Representatives and on the historic “Mercury” US dime coin (1916-1946).



# History Repeats Itself?



Will EUROPE or SOUTH AMERICA be the  
refuge for science, sanity, and progress?



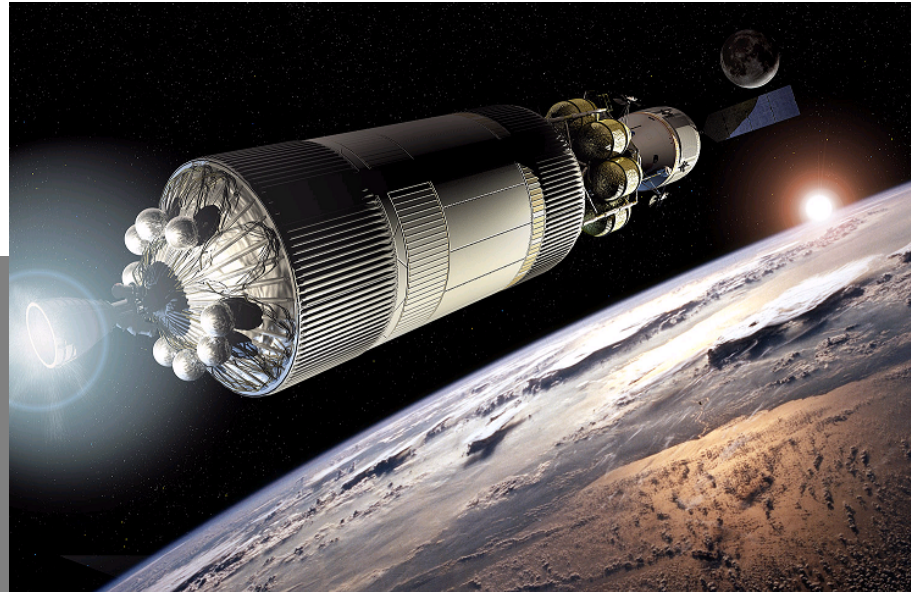
**Farewell Address of  
Dwight D. Eisenhower,  
United States President and  
Liberator of Europe,  
January 17, 1961**

“In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.”



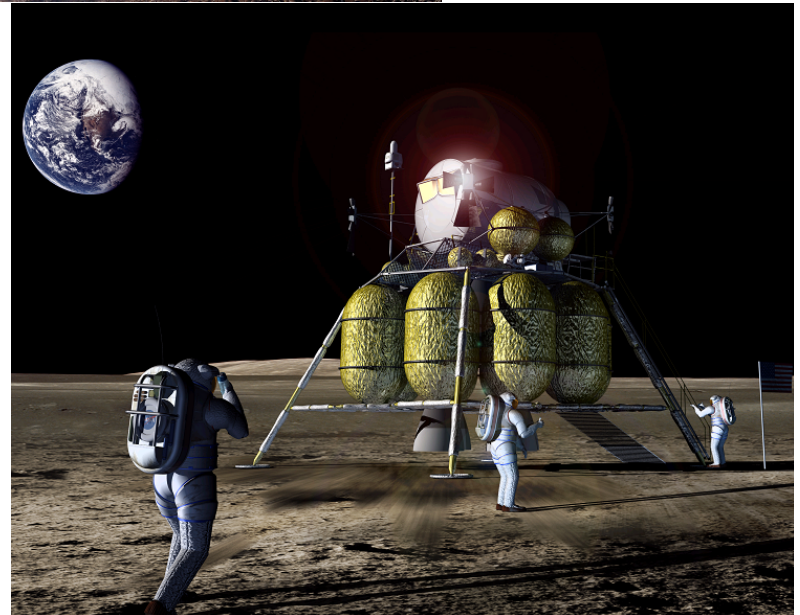
# Back to the Future at NASA

Ares V and Ares I



Return to the Moon, to get ready to go to Mars.

**“Apollo on steroids”**



# Scathing Report



## AN ASSESSMENT OF BALANCE IN NASA'S SCIENCE PROGRAMS

Committee on an Assessment of Balance in NASA's Science Programs  
Space Studies Board  
Division on Engineering and Physical Sciences  
NATIONAL RESEARCH COUNCIL  
OF THE NATIONAL ACADEMIES

Finding 1. NASA is being asked to accomplish too much with too little.

Finding 2. The program proposed for space and Earth science is not robust; it is not properly balanced to support a healthy mix of small, medium, and large missions and an underlying foundation of scientific research and advanced technology projects; and it is neither sustainable nor capable of making adequate progress toward the goals that were recommended in the National Research Council's decadal surveys.

Finding 3. The microgravity life and physical sciences programs of NASA have suffered severe cutbacks that will lead to major reductions in the ability of scientists in these areas to contribute to NASA's goals of long-duration human spaceflight.

Finding 4. The major missions in space and Earth science are being executed at costs well in excess of the costs estimated at the time when the missions were recommended in the National Research Council's decadal surveys for their disciplines.

Finding 5. A past strength of the NASA science programs, in both their planning and their execution, has been the intimate involvement of the scientific community. Some of the current mismatch between the NASA plans for the next 5 years and a balanced and robust program stems from the lack of an effective internal advisory structure at the level of NASA's mission directorates.



# Technology for Conquest

## *News Release*



### **Defense Advanced Research Projects Agency**

*"Providing technological innovation for  
national security for over 40 years."*

3701 North Fairfax Drive  
Arlington, VA 22203-1714

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IMMEDIATE RELEASE

April 28, 2006

### **CRUSHER UNMANNED GROUND COMBAT VEHICLE UNVEILED**

The Defense Advanced Research Projects Agency (DARPA) and U.S. Army today unveiled the Crusher unmanned ground combat vehicle in a ceremony hosted by the Carnegie Mellon University's National Robotics Engineering Center in Pittsburgh, Penn.

The Crusher vehicle is a follow-on and upgrade to the Spinner vehicle that was developed in a prior DARPA/Army program. Crusher is a six-wheeled, all-wheel drive, hybrid electric, skid-steered, unmanned ground vehicle. The vehicle weighs 14,000 pounds fully fueled, and is designed to carry a 3,000-pound payload – at this 17,000 pound total weight, two Crusher vehicles can be carried by a single C-130H aircraft at substantial range. If desired, Crusher can carry up to 8,000 pounds of payload and armor without compromising its mobility.

# Crusher!





# Information Technology



When aggressive  
“intelligence”  
programs were  
criticized, their names  
were changed.



FBI: Carnivore

DARPA:  
Total Information  
Awareness



# Denomination versus Cloning

<b>Religious Preference</b>	<b>Number of Respondents</b>	<b>Encourage Cloning Research</b>	<b>Wants Law Against Cloning</b>
Protestant	1,116	27.60%	58.80%
Catholic	650	25.40%	59.50%
Jewish	105	39.00%	44.80%
Buddhist	88	23.90%	55.70%
Non-religious	412	40.00%	43.90%
Agnostic	317	41.00%	41.30%
Atheist	243	49.80%	36.20%

# Church Attendance & Cloning

<b>Frequency of Attendance at Religious Services</b>	<b>Number of Respondents</b>	<b>Encourage Cloning Research</b>	<b>Wants Law Against Cloning</b>
Never	1,056	37.70%	45.70%
Less than once a year	751	39.00%	45.90%
About once or twice a year	546	36.40%	50.40%
Several times a year	479	26.30%	54.50%
About once a month	174	27.60%	55.10%
2-3 times a month	173	30.10%	56.60%
Nearly every week	236	19.50%	61.40%
Every week	302	16.60%	67.90%
Several times a week	135	11.10%	78.50%

# “Vignette” Pilot Study (N=435)

Story I, Version 1: Michael is a senior scientist in a medical research laboratory who has an incurable disease. He has become interested in a process called cryonic suspension. This involves carefully freezing a person's body, perhaps for as long as several decades, then thawing and reviving the person to continue his life. Michael has decided to enter cryonic suspension himself, so that his disease can be cured by the medical science of the future.

Story VII, Version 1: Carl is an electrician working for an airline who has always dreamed of traveling through space to another star. He has joined a group that believes it is possible to record an individual's personality and genetic code, send them to a distant planet, and reconstitute the person there to begin a new, extraterrestrial life. He is very excited about the most recent advances in the space program, and has volunteered to have himself recorded for launch on a future interstellar mission.

# Technological Transcendence

Form of Technological Transcendence	Saying the Thing is Good	
	No Doubt God Exists	Doubt about God's Existence
Cryonic suspension	13%	28%
Recording all one's experiences	77%	81%
Having one's mind scanned in	10%	28%
Uploading a human personality	22%	34%
Cloning oneself	5%	19%
Nanites inserted into blood stream	46%	57%
Send personality to distant planet	11%	27%
Average of 7 stories	26%	39%

# Stem Cell Research



**Bush vetoes embryonic stem-cell bill  
House fails to muster votes for override**

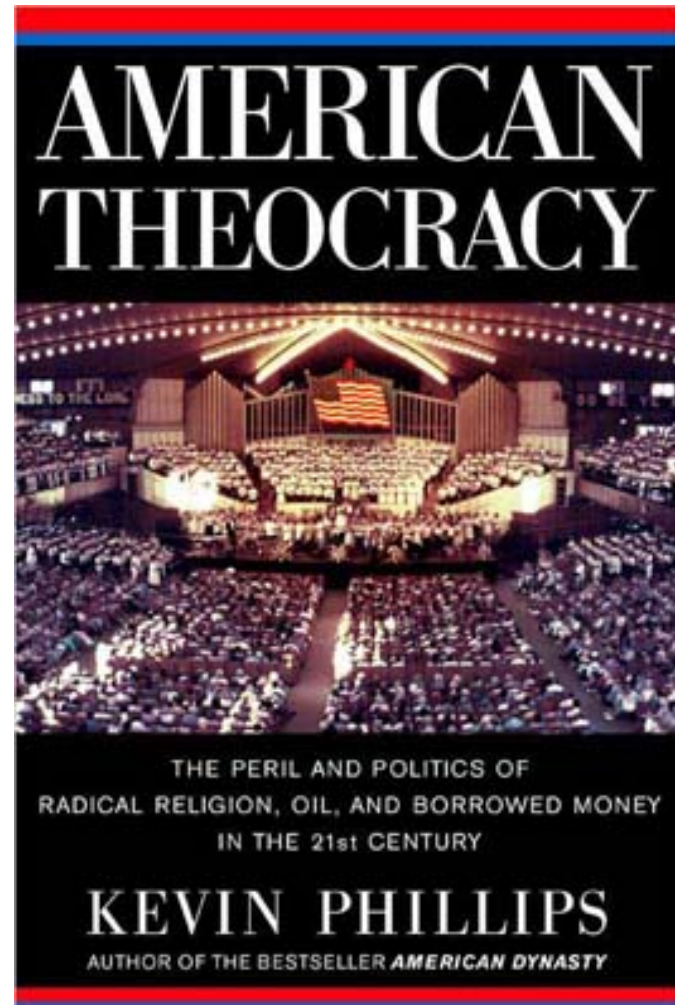
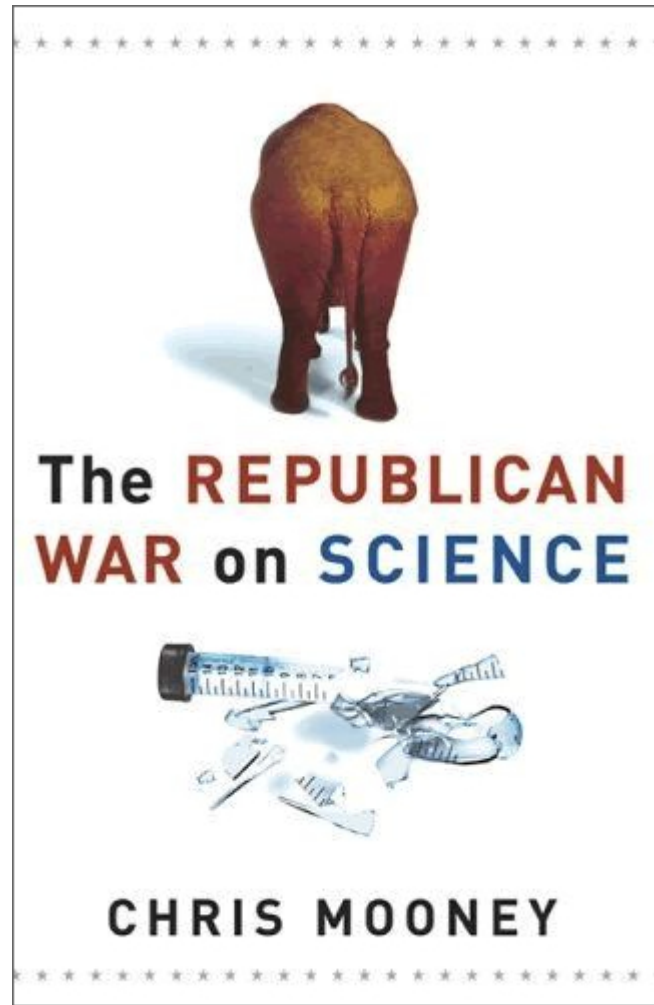
Thursday, July 20, 2006; Posted: 11:56 a.m. EDT (15:56 GMT)

**WASHINGTON (CNN) -- President Bush used his veto power Wednesday for the first time since taking office 5 1/2 years ago, saying that an embryonic stem-cell research bill "crossed a moral boundary."**



**President Bush holds a child who was adopted while an embryo Wednesday after vetoing a stem-cell research bill.**

# Much Opposition Exists



# Even From the Right

## CONSERVATIVES WITHOUT CONSCIENCE



JOHN W.  
DEAN

AUTHOR OF THE NATIONAL BESTSELLER  
*WORSE THAN WATERGATE*

“Dean draws on five decades of social science research that details the personality traits of what are called ‘double high authoritarians’: self-righteous, mean-spirited, amoral, manipulative, bullying... Dean calls Vice-President Cheney ‘the architect of Bush's authoritarian policies,’ and deems Bush ‘a mental lightweight with a strong right-wing authoritarian personality.’”

-Review by *Booklist*

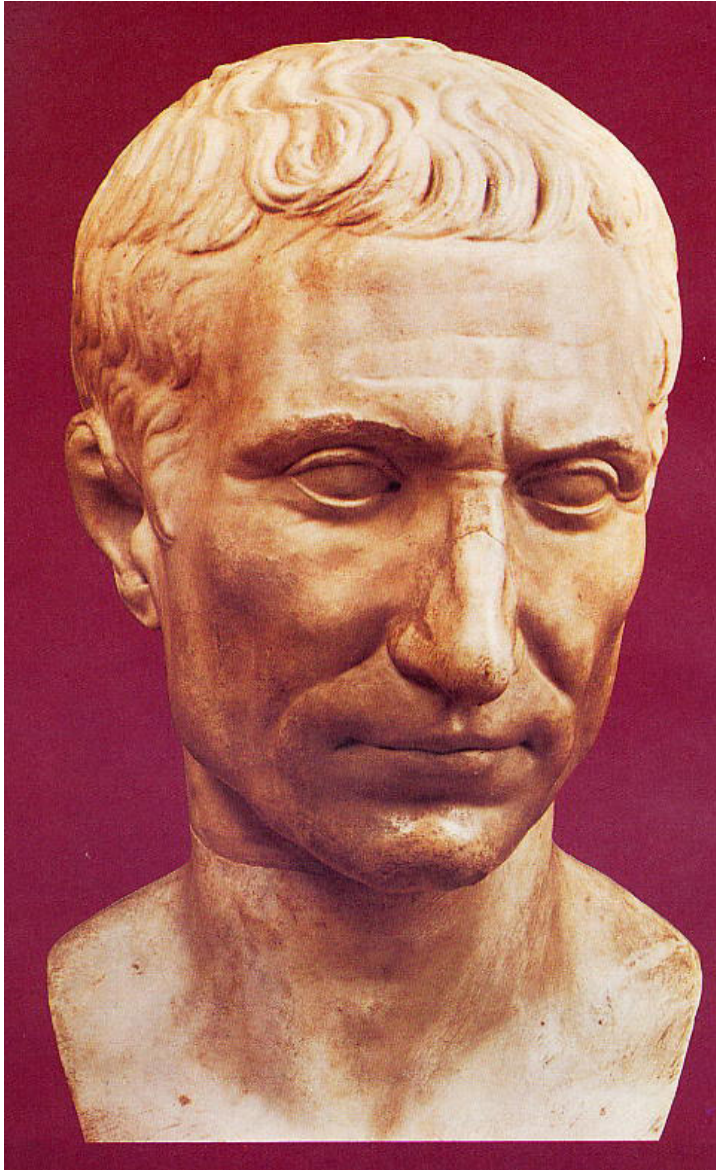


# Anxiety Promotes Fascism

Even random shocks can “pump up” Fascist tendencies, giving authoritarian personalities the “honorable” role of national saviors.



# Decline and Fall...



The Roman Republic took one century to become a dictatorship, and a second century to stifle all innovation. Thus, we cannot confidently predict a swift transformation of the American Republic.

**Marius**

**Sulla**

**Lucullus**

**Crassus**

**Pompey**

**Caesar**

**Mark Anthony**

**Octavian (Augustus)**

# What Is To Be Done?

If it is possible to work within existing Western civilization...

...we should contribute to ethical awareness and technical progress for expanding human capacities.

If it is NOT possible...

...we should begin to build our own new civilization.

Uncertain about the future...

...we should take action that advances along both paths.





# Share Ideas and Information

Through new, explicitly Transhumanist organizations



**World Transhumanist Association**  
For the ethical use of technology to extend human capabilities

**Institute for Ethics and  
Emerging Technologies**

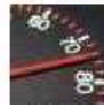
Promoting the ethical use of technology  
to expand human capacities



HEALTH



TECHNOLOGIES



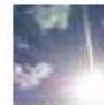
LIFE



COMMUNITY



RIGHTS



VISIONS



**Journal of  
EVOLUTION  
& Technology**



**Changesurfer Radio**

*with Dr. J.*

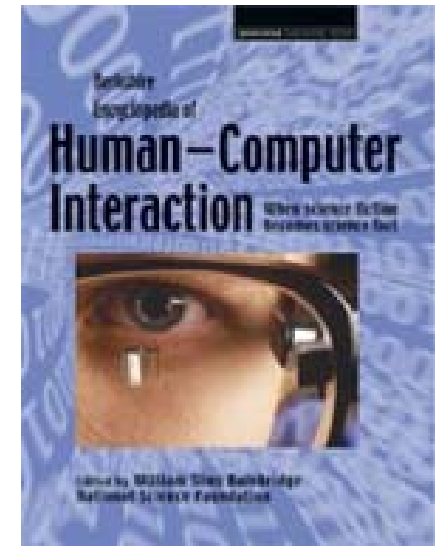
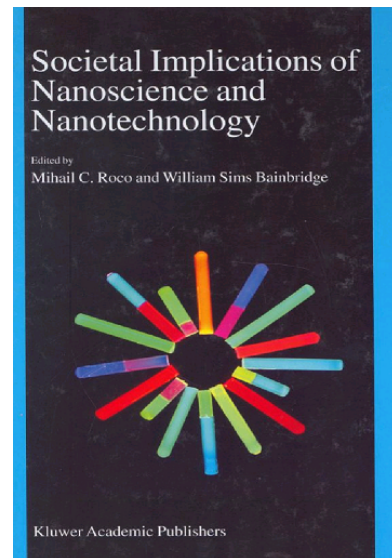
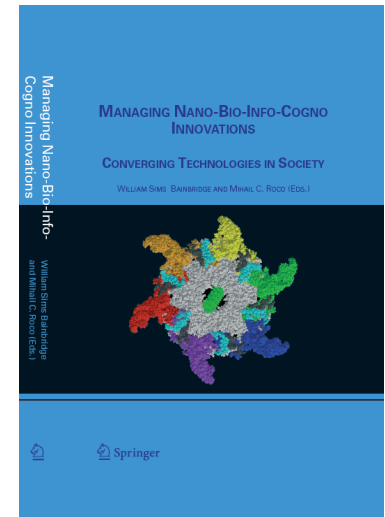
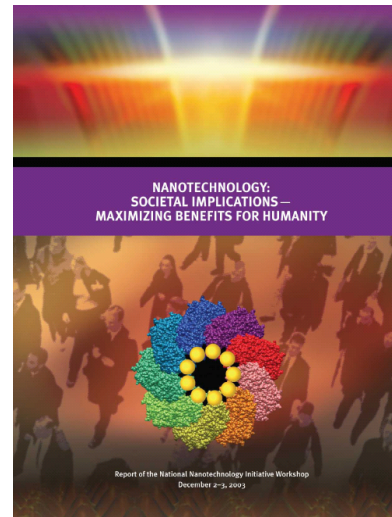
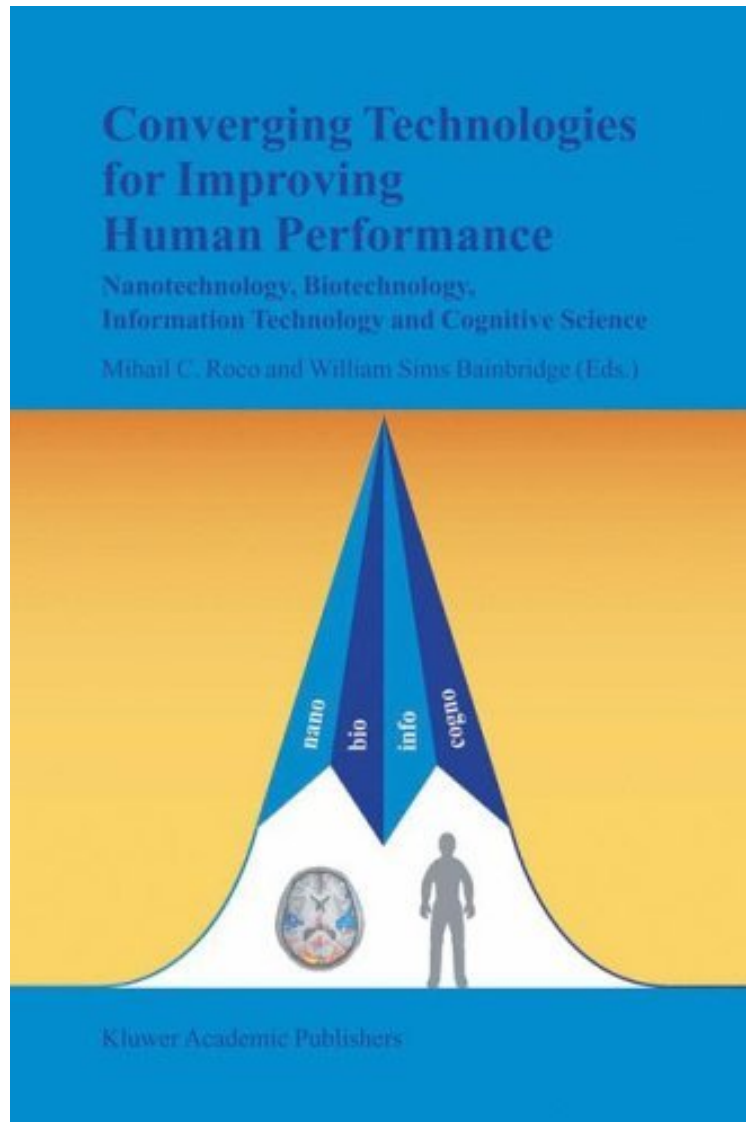


**SUOMEN TRANSHUMANISTILIITTO**  
Finnish Transhumanist Association



Library of Transhumanism,  
Extropy and the Future

# Through Existing Organizations



# Conduct Research on...

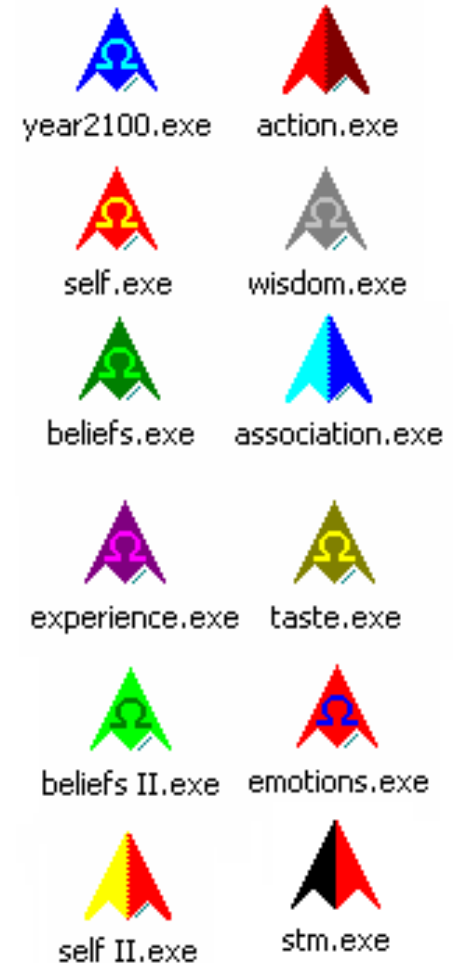
1. Personality capture, transfer, enhancement
2. Fertility-supporting family structures
3. Innovative economic relationships
4. Implicit political resistance organization



Biotechnology research may be monopolized by big corporations, but we can attempt to liberate it.

# Personality Capture Modules from the Bainbridge Laboratory

Name	Area	Items	Status
The Year 2100	Predictions of the future	4,000 (2 × 2,000)	Released
Beliefs	Agree-disagree statements	4,000 (2 × 2,000)	Released
Beliefs II	Agree-disagree statements	4,000 (2 × 2,000)	Released
Wisdom	Agree-disagree statements	4,000 (2 × 2,000)	Released
Emotions	Situations that might elicit one of twenty common emotions	4,000 (2 × 2,000)	Released
Experience	Experiences a person may have	4,000 (2 × 2,000)	Released
Taste	Preferences for foods	4,000 (2 × 2,000)	Released
Association	Judgments of the connections between pairs of words	4,000 (2 × 2,000)	Released
Action	Preferences for various actions	4,800 (2 × 2,400)	Released
Self	Adjectives describing oneself	3,200 (2 × 1,600)	Released
Self II	Public domain surrogates for standard psychology measures	4,000 (2 × 2,000)	Beta testing
ANNE	Emotional reactions to events	100,000 (20 × 5,000)	Under development
STM	Capacity of short-term memory	5,760 (48 × 120)	Experimental



Survey 2000 @ nationalgeographic.com

File Edit View Favorites Tools Help Address <http://web.archive.org/web/20010405075224/survey2000.nationalgeographic.com/index.html> Go Links

 charting communities and change  
**Survey 2000**  
©1999 National Geographic Society. All rights reserved.

# How does **where** you live shape **who** you are?

NATIONAL GEOGRAPHIC SURVEY

Nationalgeographic.com, working with Northwestern University and a diverse group of scholars, set out in the fall of 1998 to seek answers to that age-old question in a new way—via the Web. We crafted Survey 2000, an interactive questionnaire about location and mobility, and their effects on values and cultural tastes. Exactly 80,012 people from 178 countries and territories logged on, creating a wealth of data. Learn what they had to say. [More on the Survey >>](#)

[React to the Results >>](#) [Resources & Links >>](#) [Credits >>](#)

This site provides an overview of the key Survey 2000 results. Complete results are available at <http://web.archive.org/web/20010405075224/http://business.clemson.edu/socio/s2kdata211.htm>

I included an open-ended question asking respondents to write in their predictions for the year 2100...

About 20,000 responded!

**SURVEY RESULTS**

Browse through the complete results and check out the interactive SurveyPlus sections, which show more detailed findings.

- [Demographics](#)
- [Internet Access & Use](#)
- [Mobility](#)
- [Social World](#)
- [Food](#)
- [Music](#)
- [Literature](#)
- [Community](#)
- [Kids](#)

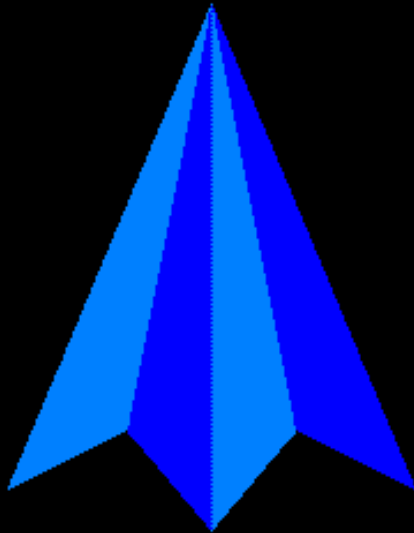


# The Year 2100

## THE YEAR 2100:

*A Time Machine for  
Your Imagination!*

by William Sims Bainbridge



Read this first!

Ready for a **NEW** dataset

Help

New

Save

Input data

Quit

Open

Save As

Data analysis

Version 1.5: (c) Copyright 2001 by William Sims Bainbridge

The Year 2100 has three main goals. It seeks to be:

1. An interactive book of the future based on the thoughts of thousands of people around the world, thus a time machine for the imagination.
2. A system for recording a person's opinions about issues that challenge decision makers today, thus a time capsule to preserve an important aspect of that individual.
3. An educational system for preparing essays concerning the major trends of our times, thus a method for consciousness expansion at both home and school.

# Cross Input Method

2. The meek will inherit the Earth, and the brave will travel to other worlds.

The interface displays a cross-shaped input grid on a gray background. The vertical axis is labeled 'LIKELY' at the top and 'UNLIKELY' at the bottom. The horizontal axis is labeled 'BAD' on the left and 'GOOD' on the right. The center of the cross is a white box labeled 'OK'. The vertical axis has 8 teal boxes numbered 1 to 8 from bottom to top. The horizontal axis has 8 boxes numbered 1 to 8 from left to right; boxes 1-6 are green, box 7 is yellow, and box 8 is green. At the bottom left are 'Back' and 'Help' buttons. At the bottom right are 'Skip' and 'Return' buttons.

	1	2	3	4	OK	5	6	7	8		
8										LIKELY	
7											
6											
5											
4											
3											
2											
1											
	BAD	1	2	3	4	OK	5	6	7	8	GOOD

Back Help Skip Return

17. Astronauts will have a base of operations on the Moon, from which they will be able to expand outward to Mars and beyond.

Diagram illustrating a 10x10 grid with labels: **LIKELY** (top), **UNLIKELY** (bottom), **BAD** (left), and **GOOD** (right). An 'X' is marked in the 3rd row from the top, 8th column from the left.

### Statements about the Future

OUTER SPACE: Ideas about space exploration, space technology, and human future in the universe.

- 3. People will be able to travel throughout and beyond the solar system. [8.4]
- 4. There will be two categories of people, Earthlings who live on Earth, and Offworlders who live on the Moon, Mars and elsewhere. [8.3]
- 12. Humanity will become a spacefaring species. [8.2]
- 13. There will be outposts on the Moon, Mars and other planets. [8.3]
- 16. Mankind will no longer be limited to one single, fragile planet. [8.3]
- 20. Colonies on the Moon and on Mars will become independent nations. [8.2]
- 21. Space programs will enjoy great popularity. [8.5]
- 22. Spaceships will leave this solar system, bound for moons around some of the larger gas giant planets discovered in other solar systems. [8.2]
- 24. Mankind will move out into the solar system and establish colonies on the moon, Mars, and the moons of Jupiter. [8.4]
- 37. The first astronauts sent to another star will travel in suspended animation because of the multi-decade duration of the mission. [8.4]
- 47. Mars will be a new home for humanity. [8.4]
- 51. A new drive for space ships will be developed that will eliminate the need for chemical rockets to escape the Earth. [8.4]
- 65. Anti-gravity or levitation will be developed to permit space travel to distant galaxies. [8.1]
- 70. There will be permanent colonies on several of the major moons of Jupiter, Saturn,

Group

- ☐ A
- ☐ B
- ☐ C
- ☐ D
- ☐ E
- ☐ F
- ☐ G
- ☐ H
- ☐ I
- ☐ J
- ☐ K
- ☐ L
- ☐ M
- ☐ N
- ☒ O
- ☐ P
- ☐ Q
- ☐ R
- ☐ S
- ☐ T

**Help**

**Save As TXT**

**Usual**

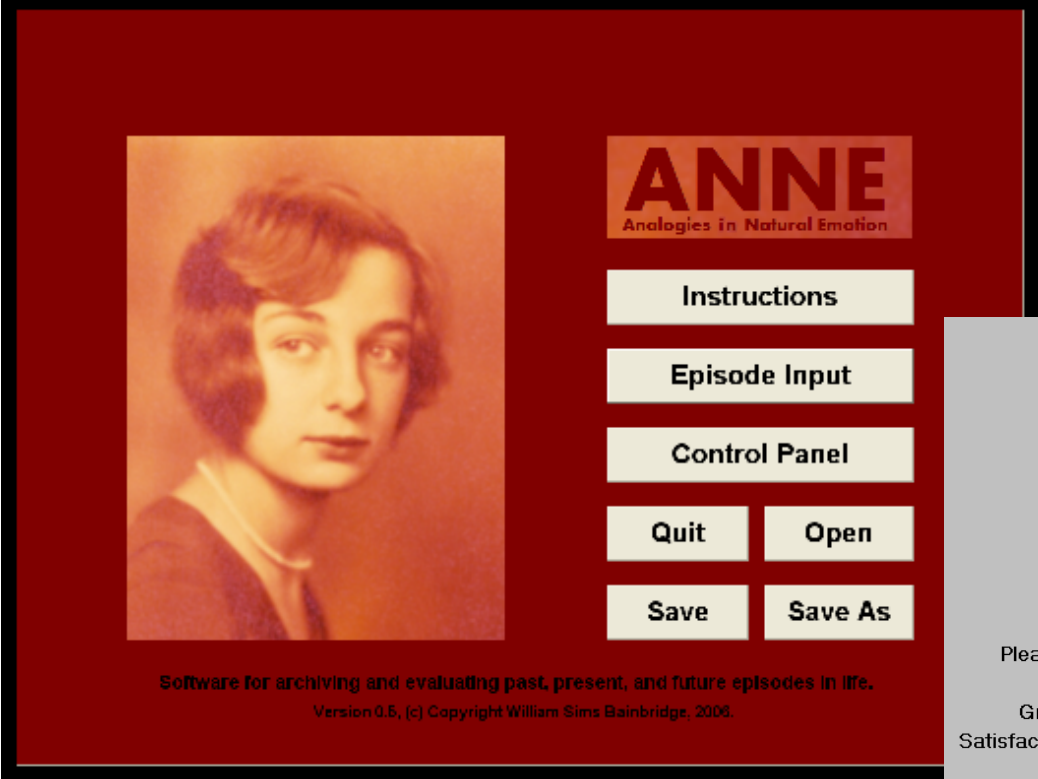
**Good**

**Likely**

**Return**

# Emotional Ratings of Life Episodes

ANNE: *ANalogies in Natural Emotion*, an advisor system, based on ratings of thousands of actual and hypothetical experiences in terms of 20 emotions: anger, boredom, desire, disgust, excitement, fear, frustration, gratitude, hate, indifference, joy, love, lust, pain, pleasure, pride, sadness, satisfaction, shame, surprise .



**ANNE**  
Analogies in Natural Emotion

Instructions

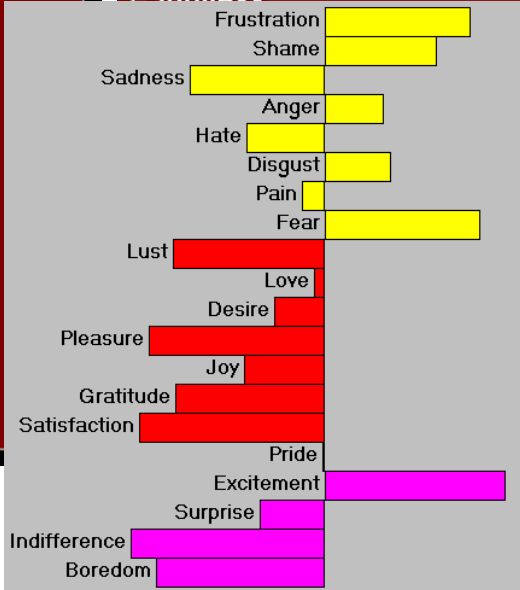
Episode Input

Control Panel

Quit Open

Save Save As

Software for archiving and evaluating past, present, and future episodes in life.  
Version 0.5, (c) Copyright William Sims Bainbridge, 2006.



Emotion	Rating
Frustration	4
Shame	3
Sadness	2
Anger	2
Hate	1
Disgust	2
Pain	1
Fear	4
Lust	2
Love	1
Desire	1
Pleasure	2
Joy	2
Gratitude	2
Satisfaction	2
Pride	1
Excitement	4
Surprise	2
Indifference	2
Boredom	2

Love

1 2 3 4 5 6 7 8

Fear

1 2 3 4 5 6 7 8

Joy

1 2 3 4 5 6 7 8

Sadness

1 2 3 4 5 6 7 8

Frustration

1 2 3 4 5 6 7 8

Shame

1 2 3 4 5 6 7 8

Anger

1 2 3 4 5 6 7 8

Hate

1 2 3 4 5 6 7 8

Disgust

1 2 3 4 5 6 7 8

Pain

1 2 3 4 5 6 7 8

Lust

1 2 3 4 5 6 7 8

Love

1 2 3 4 5 6 7 8

Desire

1 2 3 4 5 6 7 8

Pleasure

1 2 3 4 5 6 7 8

Joy

1 2 3 4 5 6 7 8

Gratitude

1 2 3 4 5 6 7 8

Satisfaction

1 2 3 4 5 6 7 8

Pride

1 2 3 4 5 6 7 8

Excitement

1 2 3 4 5 6 7 8

Surprise

1 2 3 4 5 6 7 8

Indifference

1 2 3 4 5 6 7 8

Boredom

1 2 3 4 5 6 7 8

What other experiences were like THIS one? What did you do? What happened?

What does it mean?

Analyze data in A and B separately.

Click the mouse in a box to include the data in an analysis.

A white box indicates that data exist and you may include them in an analysis.

	Sequence	Simultaneous		
A				
123	JQZ	123	JQZ	
001-120	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
121-240	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

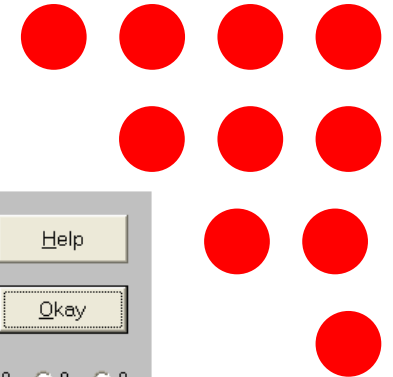
Section A (shown here): 24 modules, each consisting of 120 sets of random numbers (123) or letters (JQZ).

Section B: 24 modules, each consisting of 120 five-letter words, presented forward (words) or backward (sdrow).

Sequence: The numbers or letters are displayed one at a time.

Simultaneous: The numbers or letters are displayed all at once.

# STM



STM measures your short-term memory:  
(1) error rates, and (2) response time

Start/Stop

0.1

seconds

1.0

FAST SLOW

Delay time between stimuli is 500 msec.

1

2

3

4

5

6

7

8

9

0

Help

Okay

## Short-Term Memory by William Sims Bainbridge

?OPEN DATA?

Session 1

New



Goals: Read this first!

Open



Help

Save



Calibrate Speed

Save As...



Run

Quit



Data Analysis

Export Data



Show debug info while running?

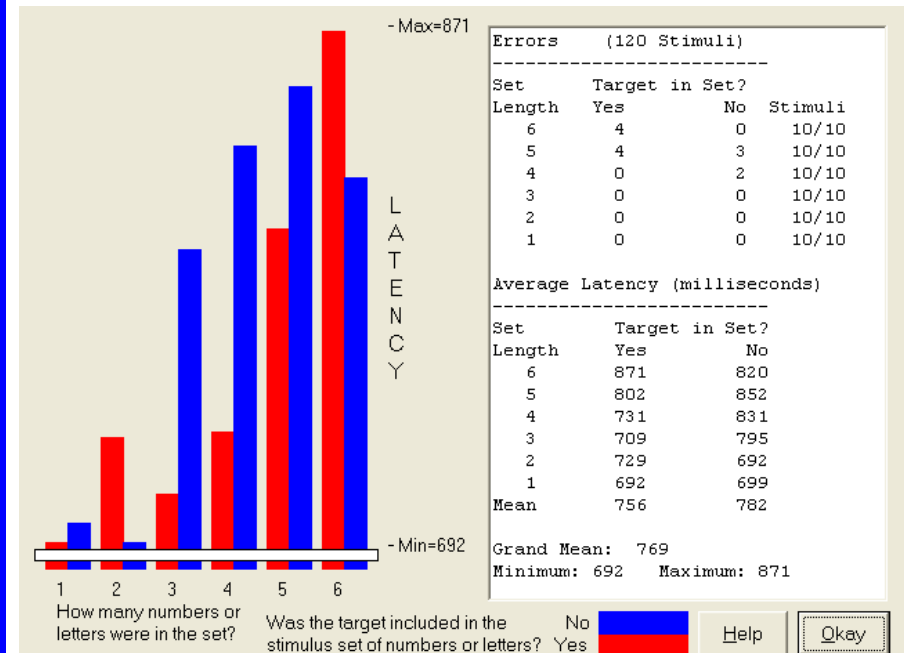


Yes



No

This software is experimental in nature and is not guaranteed to produce desired results.



# Alternative Family Structures

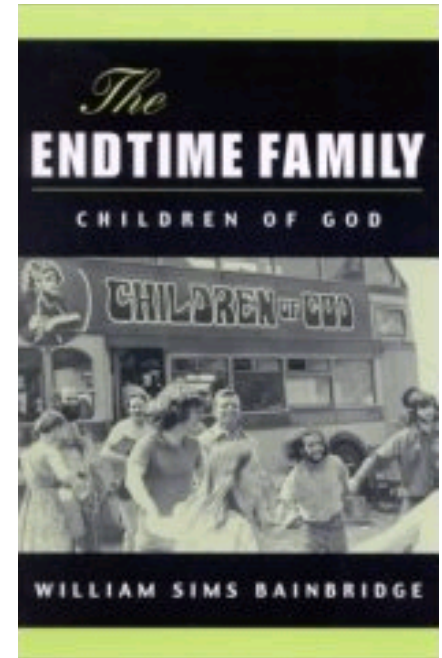
Existing scientific literature: high fertility in some religious communities; no known approach to sustain fertility in secular society.



## Hutterite Settlers

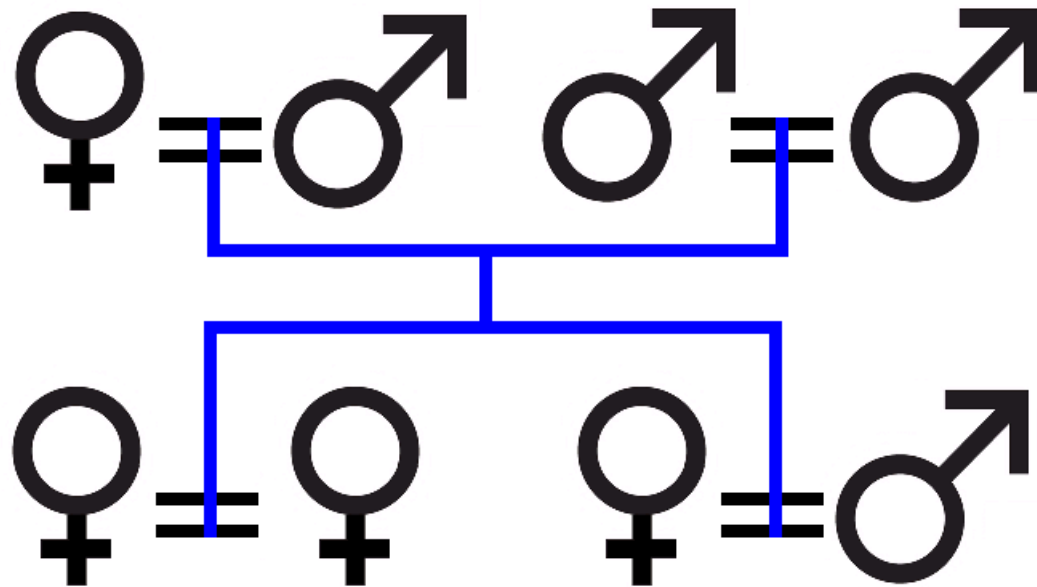
Hutterites immigrated en masse to Canada in 1918 because of harassment and persecution in the US (courtesy PAA).

## Children of God (The Family)



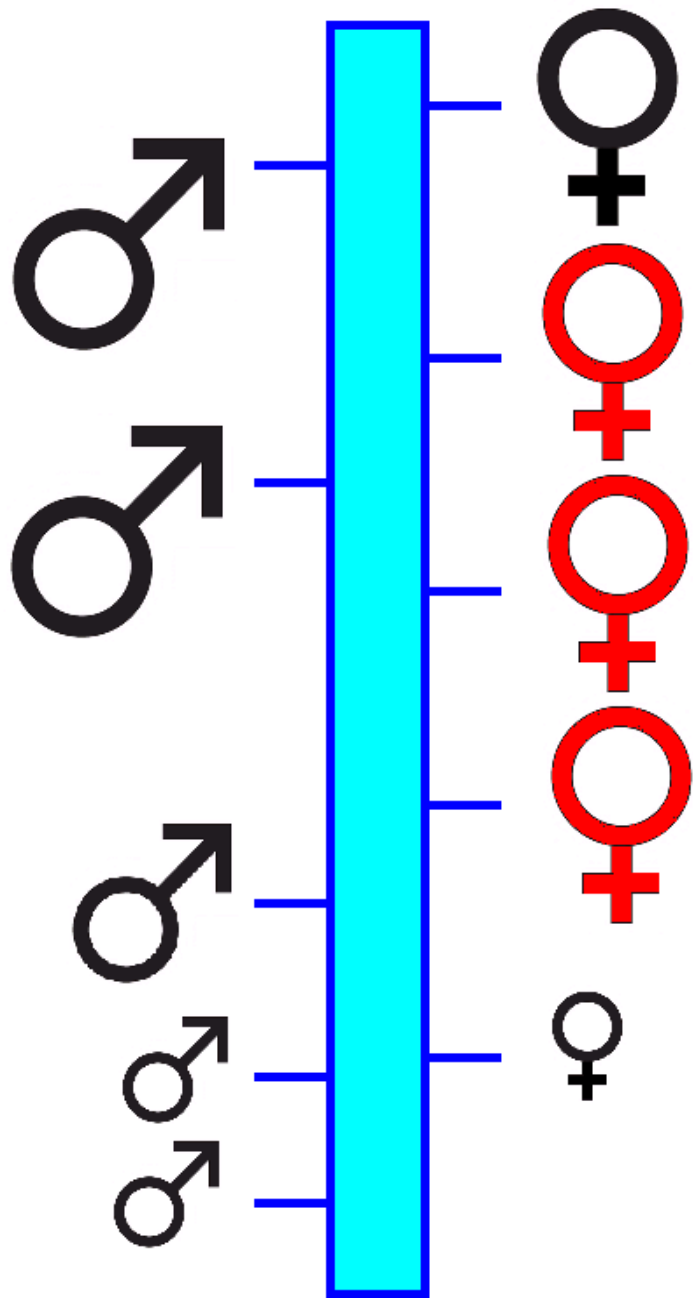
# Transcending Sexual Orientation?

Some Transhumanists might take on the significant responsibility to experiment with *matrix families*.



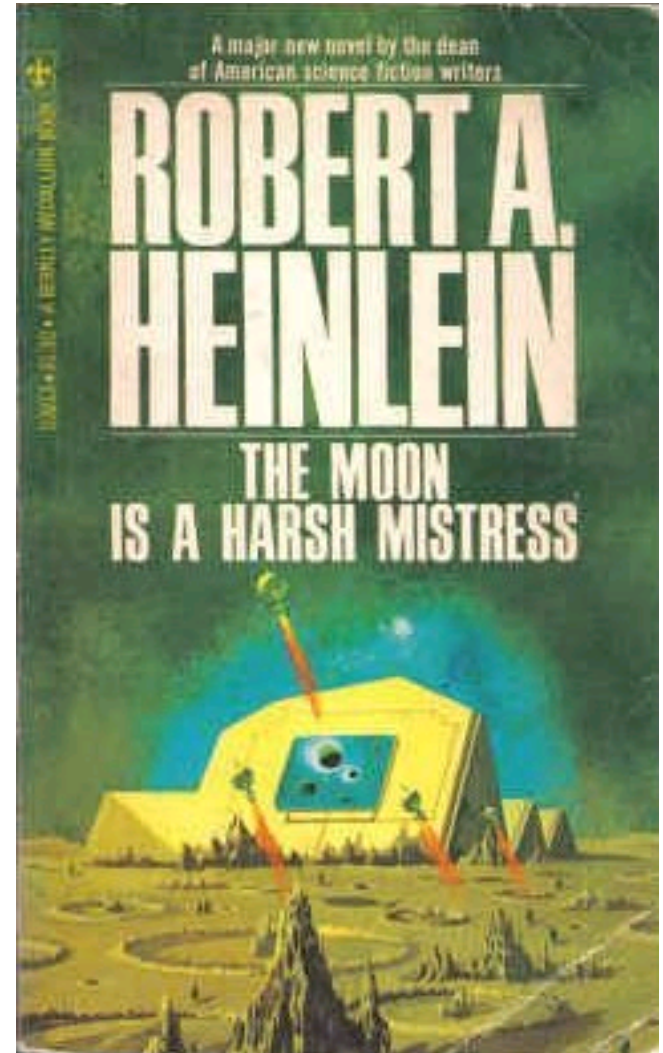
Which complex family structures can be stable, satisfying, and fertile? Under what conditions? With what motivators? With or without couples?



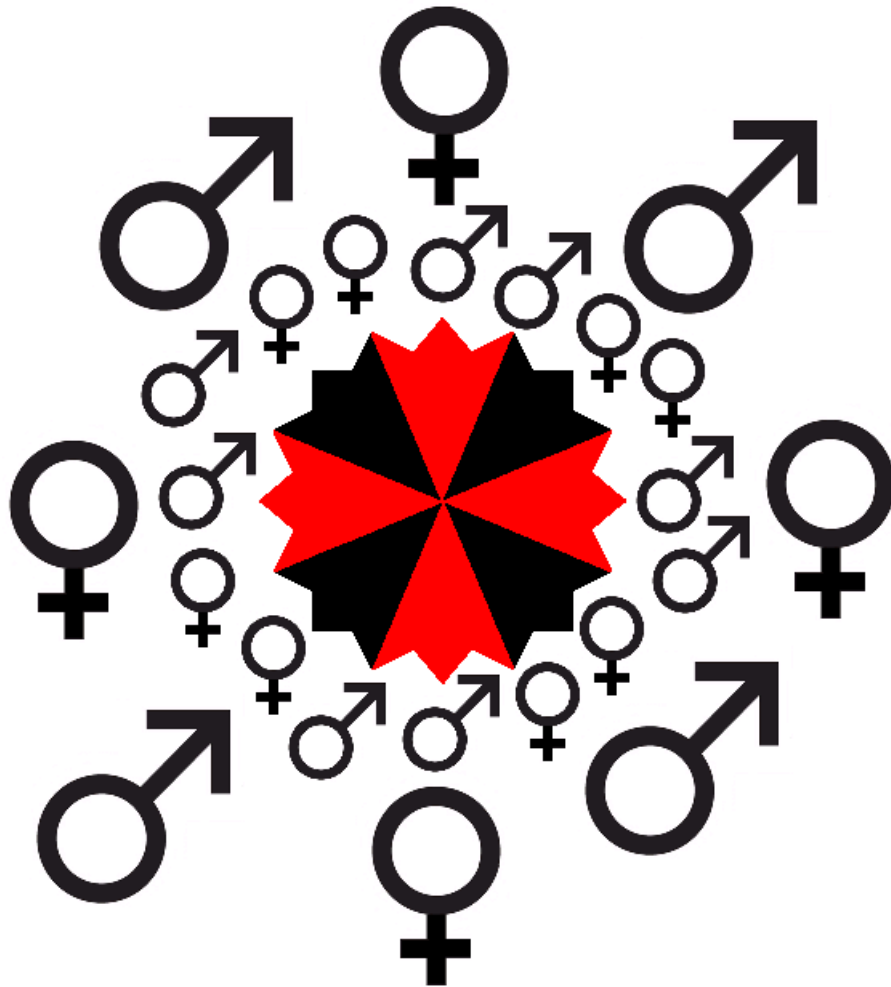


**Males and females produce children who stay in the Line Family through their lives.**

# Line Family

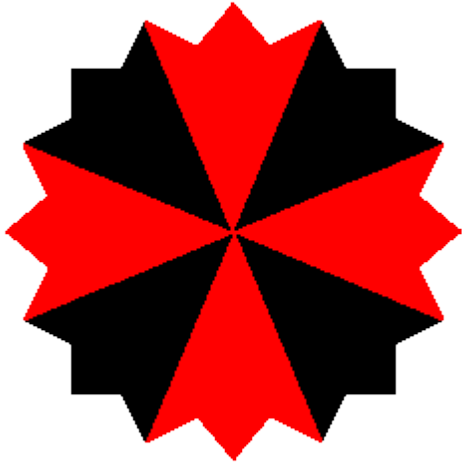


# Corporate Childbearing?



A business or non-profit organization is set up to be the property of the children of the employees. For example, a center for personality enhancement could flourish as a service to capture, archive, and computer-emulate clients. The longer-term archive and multiplicity of personality-related services could provide economic sustainability, even wealth for succeeding generations.

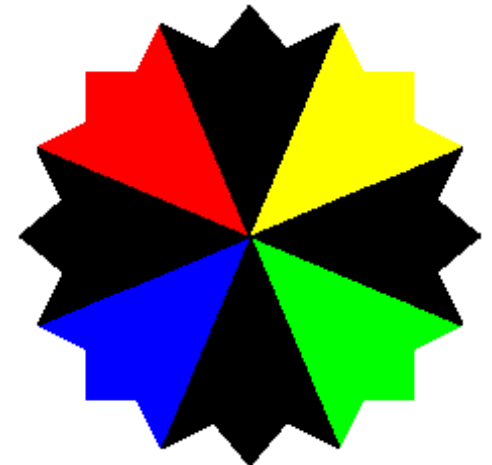
# New Economic Structures



New high-tech business, providing services developed by Transhumanists to the wider society:

1. Personality enhancement and transfer
2. Information intensive technology
3. Health and lifestyle related

Conglomerates, uniting geographically-distributed Transhumanists into an economic network, exchanging many services among themselves – *infobarter* untaxable by old-fashioned governments - and doing selected work for the wider society in exchange for goods.



# Non-Spatial Government

Tonn, B., and Feldman, D., 1995, "Non-Spatial Government," *Futures*, Vol. 27, No. 1, pp. 11-36.



“Facilitated by advances in telecommunications and information technology, governments of the future may become specialized by function. **One type of government will be non-spatial in essence and will be populated by people who share a strong affinity with each other, but not necessarily common spatial boundaries.**

A second type of government will necessarily be spatial and will be responsible for infrastructure. Another two types of governments will have enforcement and coordination responsibilities, respectively. A theory of government based on interpersonal transactions of obligations and a brief historical review of the evolution of government provide the foundation for these prognostications.”

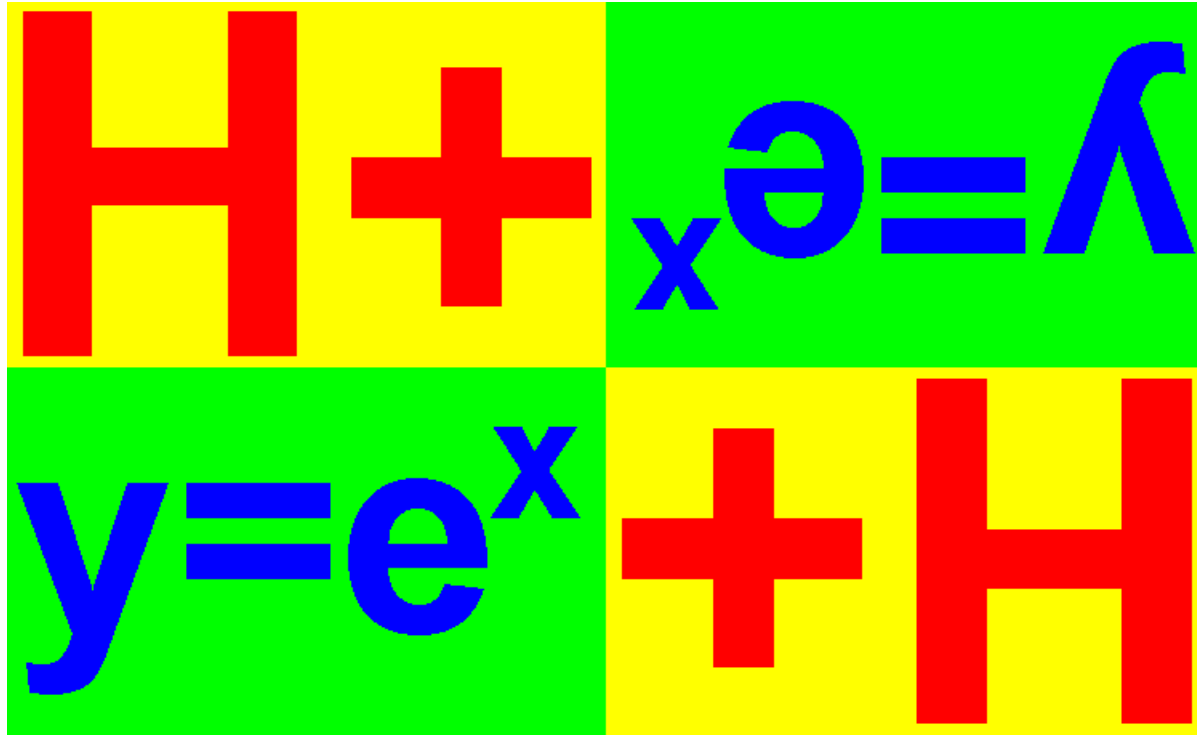
# Persecution

**If persecution of Transhumanism begins gradually, how do you recognize it?**

1. Consistent failure of the wider society to support necessary scientific research.
2. Public ridicule of Transhumanist ideas.
3. Exclusion of Transhumanist ideas from the mass media, schools, policy debates.
4. Barriers preventing Transhumanists from achieving progressive and rewarding careers.

**We must help each other achieve our individual goals, both within current society and in preparation of a New Civilization to come.**

# You Are Heroes of the Future!



If success comes easily, then thank your brilliance.  
If dark forces prevent success, then conspire in the shadows to fight for enlightenment.

William Sims Bainbridge

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## WILLIAM SIMS BAINBRIDGE

A Personal Convergenist Website

**Notable:** [Atheism](#) [Encyclopedia of HCI](#) [CyberI chapter](#) [Cloning](#) [Heresy](#) [Privacy](#) [Nanotech](#) [Conflict](#)

-  **Converging Technologies for Improving Human Performance:** Nanotechnology, Biotechnology, Information Technology and Cognitive Science (original "NBIC" conference report).
-  **Other Resources about Technological Convergence** - weblinks and data.
-  **Full text of *Goals in Space* book**, 650K PDF file.
-  Information about *God from the Machine: Artificial Intelligence Models of Religious Cognition* my 15th book. Even a soulless machine can believe in God!
-  Information about *Managing Nano-Bio-Info-Cogno Innovations: Converging Technologies in Society* edited by WSB and Mihail C. Roco.
-  **Digital Library:** 41 publications by WSB on converging technologies, II (information immortality), spaceflight, religious movements, science fiction, cosmology, computer science, etc.
-  **Personality Capture:** software and instructions.
-  **Memorials:** To be remembered, remember. The Bainbridge Family
-  **WSB's CV:** *Curriculum Vitae*.

**More than 9 years on the Web!**

This website was originally launched as "The Question Factory" on May 23, 1997, and last updated May 27, 2006  
Contact WSB at [wsbainbridge@yahoo.com](mailto:wsbainbridge@yahoo.com)

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