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 Organization for
 Rational Thinking
 (SORT)**

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For past issues, bibliography, links to other skeptics, and more, check out the SORT Website:

home.surewest.net/kitray

For more about the co-founders of SORT, see

www.spangenburgandmoser.com

**June
 SORT Meeting
 Wednesday,
 June 29, 2005
 7:30 P.M.**

La Sierra Community Center
 Room 800, 5325 Engle Road
 Carmichael, CA
 (See driving directions, p. 3)

The *SORTified* NEWS

“Doubt is the beginning of wisdom.”

—Clarence Darrow

June 29 SORT Meeting CREATING BETTER HUMANS? DOES GENETIC ENGINEERING LEAD THE WAY?

If there was such a being as a Grand Designer then even the most casual glance at humanity should be enough to convince even the dimmest observer that something was surely amiss in the designer's plans. “I think I will call it an appendix...now let's take a look at women's plumbing.”

The faults and flaws are enough, but it doesn't take much imagination to see how the product could be “bigger and better, new and improved.”

Could it...? Science and technology watchers know that major breakthroughs are just around the corner and, in fact, some of them are already here.

Should it? ...That's the question.

What if you could give your child a pill that overnight could turn the little genius into a piano prodigy? (Then *everyone* would recognize the family talent, when you used to be the only one who saw its glow.)

What if a week's worth of pills could turn a “90-pound weakling” into a Sunday Superman? Would you give the kids the pills, should you give the kids the pills? Would you take them yourself? What happens if not only you or your kids take them—what if it becomes the norm of society?

Perhaps even more worrisome, what happens if these “magic pills” are so expensive that only the rich and privileged have access to them? Sound

IMPORTANT REMINDER: JUNE PICNIC POSTPONED

A slight change in plans:
 Due to a number of
 scheduling conflicts, we're
 postponing the
 summer picnic until
 early September—
 date to be decided soon...

far out? It's not as far out as you may think. “Biotechnology,” “genetic engineering”, we read the words in the newspaper and magazines, hear them on radio and television, search for them on the Internet...but we don't spend much time thinking about what these words mean not only to our own individual lives but to society and humanity in general. For the religious and conservative, perhaps the answers are easier - Don't mess around in God's territory, it's a sin. Don't do anything, or try to change anything, unless you are one-hundred percent sure that no bad can come of it.

For the rest of us, though, it's thinking time. If we can extend the human lifeline to another 50 years, should we? What happens then to an already overpopulated world? If we could implant chips into our brains to make us all Feynmans or Einsteins, in what ways would society change, or what changes would be called for? If we could create artificial intelligence that could pass the Turing test, or robots that could emulate humans, what changes are in store, not only for human society but our very conception of what it means to be human?

It's a hatful of thinking and we will be taking a look inside that hat at the June 29 SORT meeting. It's sure to be a stimulating meeting, so bring yourself, bring a friend and join our open round table of fascinating discussion. Remember, the days of civil and intelligent conversation are not over, they still exist at SORT.

The starting time is 7:30 p.m. The formal meeting will break up at 9:00 p.m. leaving time until 9:30 for socializing. (See page 3 for driving directions.)

All SORT meetings are free and open to the public and as usual free coffee (decaf and regular) as well as soft drinks, cookies and assorted goodies will be on hand during the meeting to contribute additional flavor to a warm and flowing conversation.

A SCIENTIFIC TEST OF INTELLIGENT DESIGN

by **Kenneth E. Nahigian**

The dispute over Intelligent Design (ID) was percolating in my mind as I read an article about Paul Davies, physicist, science writer and winner of the 1995 Templeton Prize for progress in religion. Davies is a rarity: a hardheaded physical scientist with a spiritual streak, the author of about 25 popular books, including *God and the New Physics*, *The Cosmic Blueprint*, *The Mind of God*, *The Last Three Minutes*, and a new one, *How to Build a Time Machine*.

ID advocates emphasize various “cosmic coincidences” and “fine tuning” of structure constants needed for life-as-we-know-it (LAWKI). Their arguments are compelling and slick. As one example, our universe has four fundamental forces, well maybe five, and the “big two” are way out of balance—gravity about 39 orders of magnitude weaker than electromagnetism, though scientists believe these are splinters of a single, fundamental ur-force. But were the ratio not so lopsided, stars would collapse long before life had time to evolve (stronger gravity) or would never form (weaker gravity). Obviously some

Grand Old Designer, GOD for short, has been tinkering—tuning things just so for LAWKI.

To this, naturalists have two big rejoinders. First of all, perhaps life developed to fit our universe, not vice versa; hence the illusion of “tuning.” After all, even on earth, life seems pretty flexible and adaptive, with exotic sulfur-based creatures thriving in ocean-bottom hydrothermal vents, happy as clams in 380° C water kept liquid by hundreds of atmospheres of pressure. Not to mention other “extremophiles,” subterranean microbial communities living kilometers under the earth at pressures of 70 tons per square inch, or even on the control rods of nuclear powerplants! (For a review of some of these odd creatures, click to http://www.theguardians.com/Microbiology/gm_mbm04.htm.)

So if the structure constants were a bit off, we might not get LAWKI, but maybe some other ongoing/growing/sustaining process, something not remotely like LAWKI. Let's call it fweedle. And then maybe, maybe, eventually, some unimaginable analogy to a cosmic church hall where fweedle gathers to congratulate itself for being in a universe designed just for it, and no one else. (Or if no such processes, then no church hall, no one to wonder—and the question becomes moot.)

Second rejoinder: The real universe might be big, unimaginably big, even a “multiverse” of many, many universes. And on the cosmic scale, constants and boundary conditions might vary, from place to place, time to time, universe to universe. LAWKI just happened to develop in a suitable region. Given a near-infinity of choices, almost anything will happen somewhere, right? So naturally the universe we're here to see will be perceptually very similar to a designed-for-us place.

Not entirely happy with these rejoinders, Paul Davies devised a test, some differences we might expect to see between the “multiverse,” “infinite variation” or “adaptive life” hypotheses vis-à-vis

The Sacramento Organization for Rational Thinking (SORT) . . .

- Is dedicated to the promotion of rational thinking in all areas of life.
- Upholds the superiority of science over the mystical.
- Promotes and supports all efforts of intelligent communication that provide a counterpoint to the strong waves of anti-rationalism, irrationalism, and mysticism sweeping the world today.

Toward these ends we . . .

- Host a monthly discussion group.
- Publish a monthly newsletter.
- Host special events, talks, and presentations.
- Host a web page.

While SORT began with and still continues to be concerned with the promotion of critical thinking in areas dealing with the pseudo-scientific, the paranormal, the mystical, and the fraudulent, we strongly promote critical thinking in *all* areas of human thought and endeavor.

The core of SORT activities is our discussion group. The art of intelligent conversation is not dead. We at SORT believe that rational conversation—the meeting of minds, the free exchange of ideas and the provocative stimulation of critical questions-- is one of the most civilized and enlightening of all human activities.

SORT discussion topics have ranged from UFOs to the Holocaust, from “alternative medicine” to the problems in communicating science to the public, from classic and recent cons and scams to the teaching of critical thinking. Our discussions are hosted by one of the SORT founders, and participants are by no means limited to experts (although they may include experts) but are made up of intelligent and questioning people concerned with the topic of the evening.

that of a cosmic designer.

Obviously, of all conceivable combinations of parameters and conditions, only a tiny, tiny fraction are suitable for LAWKI. And of those, only a tiny, tiny fraction are optimally suitable. The vast majority would be marginally suitable, that is, near the outside limit of bio-friendliness. Davies calls it minimal biophilicity. So almost certainly, in an observable local universe within a vaster multiverse or megaverse of variable parameters, we'd expect to see some hostile conditions.

On the other hand, an intelligently designed universe should be optimally biophilic—very user friendly—with all the essential needs for life falling right into its lap.

Which is it? In fact, our local universe, overall, does not seem very friendly to LAWKI. This solar system, for example, has only one planet with thriving advanced life. Radio telescopes don't pick up a lot of alien chatter. Life tends to be self-destructive. And most of all, if our local universe were optimally biophilic, bio-generating processes would not be so wasteful of resources. Life would not be the apparent side-effect of billions of years of stellar evolution; habitable systems would not be light years apart; useful bio-ingredients would not be so rare. (In fact, atoms make up less than one tenth of 1% of the universe's mass; photons overwhelm atoms by a factor of a billion.)

In short, LAWKI seems to live on the edge of possibility, hanging by a thread, tucked into the tiniest interstice, and facing cosmic blackness on either side.

So based on Davies's test, the data do indeed seem to lean towards the "megaverse" or "infinite variation" hypotheses. And away from ID.

Davies had other cavils, and some alternative ideas, but this, it seems, is enough to trounce ID, at least till it comes back to us in some more useful form. (Likely

possibilities are Unintelligent Design, Stupid Design or Clumsy Design. These might be a bit harder to falsify.)

Click to <http://www.colorado.edu/philosophy/vstenger/Briefs/ThirdWay.htm> for the original article about Davies, by science writer Vic Stenger (March, 2005).

—Kenneth E. Nahigian
31 May 2005

FACTS ABOUT FACTS: AN INVITATION TO HELP

Michael Newdow—the man whose challenge to “under God” in the Pledge of Allegiance reached the Supreme Court last year—is seeking to increase the membership of his atheistic church, the First Amendment Church of True Science (FACTS). Believing that “commandments” are antithetical to the freedom of conscience upon which all religion ought to be based, and that ten of anything is too much to remember, FACTS has three “suggestions:” (1) Question, (2) Be honest, and (3) Do what's right.

If you would like to join and/or support the church, you can sign up at the June SORT meeting. Alternatively, you can contact Mike at FACTS, PO Box 233345, Sacramento, CA 95823.

By the way, FACTS pens will be available for \$1.00 each. However, for ease of administration, FACTS

BOARD OF ADVISERS

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About the Founders

Ray Spangenburg and Kit Moser are a husband-and-wife writing team specializing in science and technology. They are coauthors of more than 50 books and over 100 articles, including publication in the *Skeptical Inquirer*, and they are former coeditors of the *Bay Area Skeptics Information Sheet (BASIS)*.

For more information, contact:
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does not accept credit cards, checks, or foreign money. The church also refuses to take money

GETTING TO LA SIERRA COMMUNITY CENTER

From Highway 50: Take the Watt Avenue exit and head north. Turn right on Marconi, by the Raley's store. Travel east on Marconi to Walnut and turn left. Travel north on Walnut to Engle and turn right. Turn left at La Sierra Community Center. Follow the road past the main parking lot and along the east side of the building. Room 800 is in the second building on the left (just past the open, grassy area). Park, look for the SORT sign, and come on in!

From I-80: Take the Madison exit and head east. Turn right on Garfield and head south. Turn right on Gibbons and left at La Sierra Community Center. Follow the road along the east side of the building. Room 800 is in the last building before the open, grassy area. Park, look for the SORT sign, and come on in!

RATIONAL COMMUNITY CALENDAR

June 29: SORT Meeting

Topic: “Creating Better Humans? Does Genetic Engineering Lead the Way?”

Time: Tuesday, 7:30–9:00 p.m. (social period until 9:30)

Place: La Sierra Community Center, Room 800, 5325 Engle Road, Carmichael.

Everyone is welcome and all meetings are free.

Sacramento Skeptics

Temporary hiatus: For details, contact Liam McDaid, (916) 558-2005, mcdaidw@scc.losrios.edu

July 10: Atheists and Other Freethinkers (AOF)

Time: Second Sunday, 2:30–5:30 p.m.

Speaker/Topic: To be announced

Location: Sierra 2 Community Center, Room 10, 2791 24th Street. (South of Broadway). Light refreshments. The public is welcome.

August 11–14: Skeptics’ Toolbox, Eugene, Oregon

A rare opportunity to meet some of the luminaries of skepticism and engage hands-on in meeting some challenges to rational thinking. For more information, go to <http://www.skepticstoolbox.org/>.

that is interlarded with religious dogma contrary to its fundamental tenets.

Thus, any United States currency or coins that bear the words “In God We Trust” cannot be accepted.

If you find that these conditions impede your ability to provide financial support, Newdow suggests you can place that fact in writing. Such a blatant interference with the free exercise of religion—in violation of both the Constitution and the United States Code—will be a key issue underlying a federal lawsuit Mike plans to bring this summer. According to Mike, your written notes—

simply stating that the placement of that religious phrase on the money has interfered with your ability to follow your conscience and support this atheistic church—may prove to be valuable in the case.

SORT

*Educating Ourselves
and Educating Others*

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ADDRESS CORRECTION REQUESTED