

FOR LECTURE ON SCI-REL: COSMOLOGY

I Q "Rel Truth vs Sci Truth" = long history Westn wrld, esp Chy. Careers made/broken, lives enhanced/lost, in bitter polemics... Galileo/Copernicus.

Too often b both guilty overstatement. REL... SCI...

Intrstg: Adin Steinsalz: ~25 yrs ago poll Amer univ profs/

Q: Blv in Gd? If nt-why nt? A. Most profs Sci-blv. Humanities- No. Reason: bec Sci has proven rel claims=false...

Prob Sci/Rel=quite complictd. BUT, while Jsm=mch *sturm/ drang* no bloodshed: each, Jsm/ nat sci, spoke in name Truth.

There 's mch t say re: Sci/Rel—but not now. Briefly, my view: seprt Truths... Bbl not text hw create wrld 6 days

My major intrst ths evnng=cosmlgy. One of 1st problems cosmlgy=lf othr worlds

2500 years ago, Anaximander: infinite numbr worlds, some in process of being born/dying. 200 yrs later, Democritus: same re: infnty time/space.

Such speculation rife thru ages. 3-400 yrs BEFORE man on moon, scholars discussd: intllgnt beings elsewhere in some other solar system. -Kubrick... see F&D... (רמב"ם ורס"ג) Now: EXOBIOLGY--On attd Jsm - I got involvd

II. Whn I undergrad, most athsts/agnostics: Arsttln Etrnty Mtr; Creatn="myth". Then: "BIG BANG! ... And 45 yrs ago, dscvr'd defntv evdnce expnns unvrs fr hot/promrdial State. Sinc thn: expnsn+coolg unvrs= unifyg theme cosmlgy. Just as Drwin'n evol=unifyg theme bio. W-o evoln+expnsn, mod bio+cosmgy- make little sense...

BUT 1991 Sci mgzn: Bg Bng mght hv t b junkd!
Headln: "BG BNG BLOWN To BITS". But: Apr '92-Geo Smoot (UofC) detected faint irregulrties in bath microwavs

Now: B-B .. 13.7 Bln yrs ag Dark energy was a complete surprise. galaxies is 20 percent, and dark energy, pushing the galaxies faster and faster apart, is 76 percent, they now say, ordinary atomic matter is 4 percent of the cosmos; dark matter t
You might wonder just exactly what kind of triumph "precision and dark energy, percent of the universe is unknown dark stuff."

+ strange
+ fixed
+ under
+ even unimpaired
(celestial)
any cosmology

(2)

After all, 96% of univrs=still waitg t b found

III. We now come to the truly outlandish: the asexual reproductn of universes

Physcst Lee SMOLIN—(West Side boy prnts-Brnx): "black holes + bubble unvrse hold key t LF". Probg wht happnd frst momnts of Time or: wht happns at cnter of Black Hole

F him: laws of physcs not fixd/invariabl. JHer: B-B happnd in Black Hole—in a prior univrs Our own univrs new copies of slf in recesses black holes scatterd across sky. Then the baby unvrse expand & reproduce

So wht hv we here?—unvrss beget unvrss whow diffrt laws Ntr I think what *our* unvr needs=a csmglcl contraception!... I no scstst, but lrnd bit Talmd—א בויך סברא. No O-U of sci: א יכול להוימה==not falsifiable...

IV. Now t more of samep—but even mr radical. ("Big Brain Theory: Have Csmolgists Lost Theirs?") They: our memories/world you think y see around you=illusions!

In words Sean Carroll (Cal Inst Techlgy): "WE KNOW MUCH BUT WE UNDRSTAND LITTLE" What commedbl Modesty!


In the end, what does our exploration really mean? One quote has resonated with many scholars, who have attributed it to various authors, including Arthur C. Clarke and Isaac Asimov: "There are two possibilities. Maybe we're alone. Maybe we're not. Both are equally frightening." It would be fruitlv mind-bogeling to deter-

could be an advanced version of a guy who spends his weekends building model railroads or overseeing video-game worlds like the Sims.

But now it seems quite possible. In fact, if you accept a pretty reasonable assumption of Dr. Bostrom's, it is almost a mathematical certainty that we are living in someone else's computer simulation.

Humans don't realize that their lives and their world are just illusions created in their brains while their bodies are suspended in vats of liquid. But in Dr. Bostrom's notion of reality, you wouldn't even have a body made of flesh. Your brain would exist only as a network of computer circuits.

There could be layer upon layer of simulations until you finally reached the architect of the first simulation — the Prime Designer, let's call him or her (or it). *PRIME DESIGNER* the Prime Design-

V. Wee now come t somthng even mr weird, even scary 
Philosphr at Oxford, Nick BOSTROM. We are all living in a
virtual, not a "REAL" world.

Writer: It nvr occurred t me tht the omniscient omnipotent Creator Hvn/Earth

Dr. Bostrom assumes that technological advances could produce a computer with more processing power than all the brains in the world, and that advanced humans, or "posthumans," could run "ancestor simulations" of their evolutionary history by creating virtual worlds inhabited by virtual people with fully developed virtual nervous systems.

Our world. Whatever you're touching now — a sheet of paper, a keyboard, a coffee mug — is real to you even if it's created on a computer circuit rather than fashioned out of wood, plastic or clay.

You still have the desire to live as long as you can in this virtual world — and in any simulated afterlife that the designer of this world might bestow on you. May-

There would be no way for any of these ancestors to know for sure whether they were virtual or real, because the sights and feelings they'd experience would be indistinguishable. But since

VI. Finally, a down-to earth note of sanity. And some Humor.

By Peter Berkowitz

Physicist Alan Sokal's article in the journal *Social Text*, submitted as a hoax and unwittingly published, has left its editors huffing with indignation. But beyond the bruised academic egos the episode raises an extraordinary question: What does it say about the state of academic life that leading scholars were unable to distinguish serious argument from utter nonsense?

It was in the pages of the May/June issue of *Lingua Franca* that Professor Sokal explained that his essay, "Transgressing the Boundaries: Toward a Transformative Hermeneutics of Quantum Gravity," was exactly as it appeared: a random assortment of arcane, jargon-infested abstractions. Filled with trendy pronouncements about the need to establish an "emancipatory mathematics," and a "liberatory science," it was, by its author's own account, devoid of both evidence and reasoned argument.

In the scandal's wake, Social Text's editors have
 שהקב"ה הדיק בונה שלמות ומחירי המקור לך הוא 1-1
 שיהיה שפוט וספוט - שפוט וספוט
 שיהיה שפוט וספוט - שפוט וספוט

VII. Conclusion: I confess I less than honest w you

True, many of the avant-garde scnts may be way out but their intuition is not crazy!

Fact: Many of their theories etc have precedent in sober J trad

THUS: plurality of words: ב"ר: הקב"ה בונה עולמות ומחריבן

OR: Worlds giving birth t worlds: א"ס וספירות and each=a world

SO: Creation & Emanation (latter=Pythagoreans: each level=lesser). Tor xt=creatn; Zohar—emanations

AND: Quaternity of Worlds—אבי"ע; evn tho they=□ystical.....

AND: Our existence=virtual.not real: ACOSMSM! גר"ח ובעה"ת

AND we in a virtual world created by someone else –

שמע ישראל...אחד, עפ"י גר"ח ובעה"ת

=====

.... So I apologz to those scststs whom I spoofed and mentioned by name—and to you, a patient and tolerant audience

Happy Holiday

April 17, 2008

Post-lecture comments on Cosmology-religion (The original lecture was given at the Columbia Program in Science and Religion held on April 15 at Congregation Ramat Orah)

- 1) The lecture was comparatively short; it should be expanded somewhat.
- 2) There was too much reading from the extract I used. Instead, pass it all into my language and organize it better.
- 3) The idea is: first, present what the contemporary cosmologists are saying and then criticize them for extravagance, no falsifiability, and extravagance: how can one posit other universes with other natural laws and still be able to communicate with them? If not, all this talk is just so much intellectual chatter.
- 4) The spoof by Ian Sokal. Reorganize it so that I put the quote first and then say that it was a spoof by Sokal and then the conclusion that sometimes the best scientists are beguiled by currents that are beyond them (especially the post-modern lingo of the humanities).
- 5) At the end, when I show that despite all my criticisms and snide remarks, the fundamental ideas were already known and written about some two-thousand years ago in the Midrash. In addition, Kabbalah, RHV and the Baal Hatanya, and the use of these concepts in reciting the Shema (as in my book of the same name).