Re: Skolem's Paradox and why is math the way it is?

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From: J.E. (*troubled6man_at_yahoo.com*)
Date: 10/14/04

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raf@tiki−lounge.com (Ross A. Finlayson) wrote in message
news:<3c6b9c1e.0410111828.1d929f6e@posting.google.com>...

> Doctor is just a term of affection, in an academic way. It's a
> nickname. Are you often an assembly coder? (Hi Steve.) Wassup, doc.
> "Doctor, doctor, doctor, ...".

In my experience terms of true affection are consentual, I thought I made it clear I didn't approve of the name, I don't want others to get the wrong idea and this *is* a public forum.

> About the gravity thing, I am thinking more about the hot water
> weighing more than the cool water and the compressed spring more than
> the free spring. So, could a ship carry for its ballast springs and
> compress them for ballast, or is that a mass system? Is the force
> only applied in the direction of the spring's compression? Is the
> warmer water having higher gas pressure throughout, affecting and
> effecting force in all directions? Do you have any inertial
> capacitors?

Have you heard of the equation E=m*c*c? The amount of weight of a quantity m of mass, is close to m*g, so the amount of weight of some quantity of energy E is close to (g*E)/(c*c), and since c is so large, you need a rather powerful spring to have an appreciable weight gain. Gluons inside a nucleus binding protons together are a pretty darn powerful example of a spring, other springs like a covalent bond are fairly light in weight. What we call call "mass" in a particular experiment is potential energy (or internal kinetic energy) that we expect for the experiment won't be changing in quantity. You could talk about "rest energy" instead of "rest mass", the units are different by a couple factors of the speed of light, but it's more accurate since it includes all the sources, not just some of them. Things without rest mass (light photons, which can't be at rest) still have energy. As for your ballast example: It takes energy to compress a spring, so if you compressed it "on board" then the amount of energy "on board" wouldn't change. If you brought it onboard compressed and

then later uncompressed it, then the spring might jump off the ship (unless it's prevented from doing so), or push air around that then leaves the ship (unless air is prevented from leaving), or it may change the momentum of the rest of the ship while it moves to another part of the ship, and if the ship is in contact with other systems, that change in momentum might cause the ship to lose energy to the environment. As for inertial capacitors, I have *no* idea what you are even talking about.

> *The gravity conjecture there is really just that, and uninformed to*
> *boot.*

I don't know which conjecture you are talking about. The above point about matter−energy equivalence for gravitational fields is based on GR, it's been accepted for decades, and I didn't think anyone every found a problem with it, do you know of one? Are you talking about something else?

> *You're telling me that you can't infinitely tune a laser, but laser is*
> *coherent light of one wavelength and frequency, uncoherent light is*
> *not coherent. My thoughts on the matter are not particularly*
> *coherent.*

Think about this, to have just ONE wavelength, you need the laser to travel an infinitely long path. If you can bend it into a closed circle, then you *might* be able to do it. *I* don't personally know how to make a perfect laser in a lab, all the L.A.S.E.R. devices I work with have a small *spread* of wavelengths.

> *I would like some example of something in nature that is infinitely*
> *variable. I think the universe itself is infinite, in space−time.*
>
> *About the nothing, not nothing, not not nothing, etcetera, I hadn't*
> *thought to consider that the first step after nothing was U, but*
> *rather that it was 1.*

Then I didn't understand what you were doing, You have zero, then 1, then when do you start invoking your excluded middle? If you explained it elsewhere, you can give a reference rather than posting again.

> *You ask for a construction of the real numbers. In a sense, the real*
> *numbers are the closure of the hyperintegers to division, except that*
> *the hyperintegers (from NSA) are just integers and the closure of the*
> *integers to division is the rational numbers. Irrational numbers*
> *exist, that is well−known.*

You lost me again. Are real numbers different than rationals if you have hyperintegers (a big N (larger than all standard integers) from NSA I assume)? If not then there is more of a defintion involved than what you said, and if not, then how do you distinguish between

rational and irrational, rationals are standard and irrationals aren't equivalent to a standard rational. I didn't realize there were two nonstandard integers whose ratio was pi. But then again I have trouble recognizing nonstandard integers, telling one from another.

> *The real numbers exhibit all qualities of being continuous. Draw a*
> *line from point A to point B without lifting the pencil.*

Paper is bumpy, pencils deposit little sheets of carbon (graphite).
How is this continuous?