NOVEMBER 20, 2011 THESKEPTICARENA.COM

There goes another "constant"

And with it, apparently, the Standard Model of physics

VOX, YOU CONSTANTLY ATTACK SCIENCE, AND YET HERE YOU ARE, ACCEPTING THE RESULTS OF EXPERIMENTS THAT EVEN THE SCIENTISTS AT CERN ADMIT REQUIRE VERIFICATION BY OTHER RESEARCHERS BEFORE THEY CAN MAKE THE CLAIM THAT YOU JUST DID. WHY THE SUDDEN ACCEPTANCE OF SCIENCE VOX?

THE REASON YOU JUMPED THE GUN AND ACCEPTED IT, IS BECAUSE YOU THINK YOU CAN USE IT TO SHOW THAT SCIENCE IS UNRELIABLE, AND THEREFORE, YOUR ANCIENT BOOK OF FAIRY TALES MUST BE TRUE. BUT VOX, EVEN IF SCIENCE WERE PROVEN UNRELIABLE, IT STILL WOULDN'T BE EVIDENCE FOR THE EXISTENCE OF YOUR INVISIBLE GHOST. HAD YOU TAKEN EVEN AN INTRODUCTORY LEVEL LOGIC COURSE, YOU WOULD HAVE LEARNED THAT.

Antonio Ereditato, spokesman for the international group of researchers, said that measurements taken over three years showed neutrinos pumped from CERN near Geneva to Gran Sasso in Italy had arrived 60 nanoseconds quicker than light would have done. He said, "We have high confidence in our results. We have checked and rechecked for anything that could have distorted our measurements but we found nothing. We now want colleagues to check them independently."

VOX, THAT IS HOW REAL SCIENCE WORKS. NOT THE WAY YOU DID IT IN YOUR OPENING STATEMENT WHERE YOU SIMPLY SKIPPED INDEPENDENT VERIFICATION AND ACCEPTED PRELIMINARY RESULTS AS FACTS. THAT'S PROBABLY WHY THEY'RE ALL WORKING AT CERN ... AND YOU'RE NOT.

If confirmed, the discovery would undermine Albert Einstein's 1905 theory of special relativity, which says that the speed of light is a "cosmic constant" and that nothing in the universe can travel faster.

VOX, IF YOU RECALL, EINSTEIN'S THEORY OF GENERAL RELATIVITY TEN YEARS LATER, FINE-TUNED NEWTON'S LAWS OF GRAVITATION. IF THESE RESULTS AT CERN ARE CONFIRMED THEN EINSTEIN'S RELATIVITY WILL BE ADJUSTED TO FIT IN WITH THE NEW DISCOVERY. SCIENCE WILL ADVANCE AS IT ALWAYS DOES WHEN NEW DISCOVERIES ARE MADE.

THAT IS ACTUALLY A PRETTY CLEVER, THOUGH DECEITFUL, LITTLE STRATEGY YOU'VE DEVELOPED: YOU KNOW THAT SCIENCE CONSTANTLY KICKS YOUR ASS WITH NEW DISCOVERIES, NONE OF WHICH EVER HELP YOUR RELIGIOUS BELIEFS, SO YOU HAVE DECIDED TO CHEER NEW DISCOVERIES, ACTING AS IF EACH ONE PROVES SCIENCE'S INEPTITUDE. THIS KIND OF "REVERSE LOGIC" HAS OBVIOUSLY WORKED ON YOUR SMALL BAND OF GHOST WORSHIPPERS, WHO, LIKE YOU, DESPERATELY SEEK TO FIND A WAY TO BLUNT THE LIGHT SABER OF SCIENCE WHICH CONTINUES TO SHRED YOUR HOLY BOOK INTO AN UNRECOGNIZABLE PULP.

And, of course, this is a totally awesome discovery, because everyone knows what this means. HYPERSPACE! But is it even properly considered science, when it is "a totally unexpected finding"?

VOX, THE DISCOVERY IN THE LATE 1990'S THAT THE UNIVERSE WAS EXPANDING FASTER THAN THE SPEED OF LIGHT WAS A TOTALLY UNEXPECTED FINDING. IF THAT WASN'T "SCIENCE," WHAT WOULD YOU CALL IT?

IF A RESEARCHER WANTS TO LEARN THE MELTING POINT OF A METAL UNDER VARIOUS PRESSURES, WHY IS IT NECESSARY TO KNOW THOSE ANSWERS IN ADVANCE (MEANING, "EXPECTED FINDINGS") IN ORDER TO BE CONSIDERED SCIENCE?

SO USING WHAT PASSES FOR LOGIC IN YOUR MIND, IF THE MELTING POINT WAS PREDICTED, IT'S SCIENCE; AND IF IT WAS MUCH HIGHER THAN EXPECTED, IT'S WHAT? MAGIC? GOD SCREWING WITH THE RESULTS? PSEUDOSCIENCE? WHAT EXACTLY ARE YOU CALLING IT? GUESSING? WELL GUESS WHAT? GUESSING *IS* PART OF THE SCIENTIFIC METHOD. YOU NEED TO LOOK UP THE WORD "HYPOTHESIS."

AND VOX, PUT THE QUESTION MARK *INSIDE* THE FINAL QUOTE MARK. THE ILK ALREADY HAVE SERIOUS DIFFICULTIES WITH GRAMMAR AND SPELLING WITHOUT YOU GIVING THEM MORE BAD EXAMPLES.

Obviously, science will now be brought to bear on it, at least the replication aspect. But what is the hypothesis for this faster-than-light neutrino movement that was being tested?

VOX, FASTER-THAN-LIGHT NEUTRINOS WERE NOT BEING TESTED. NEUTRINO SPEED WAS BEING MEASURED, AND IT RETURNED AN UNEXPECTED RESULT. IF CONFIRMED, *THEN* HYPOTHESES TO EXPLAIN THE NEW RESULTS WILL HAVE TO BE OFFERED AND TESTED.

VOX, ONE WORD: "READING COMPREHENSION." AS MENSA'S PROUDEST MEMBER, THAT IS SOMETHING YOU ARE SUPPOSED TO BE GOOD AT.

COMMENTS FROM "THE DREADED ILK"

MarkkuKoponen

It could ostensibly be similar to anomalous diffraction, in which it looks exactly like a pulse is moving at considerably greater speeds than c, but it is mere illusion. If you stop the pulse or start the pulse at the origin, the effect of that change is only detected at the end point at the moment that a ray of light would have travelled there. Meaning, you can't use it to transmit information at speeds greater than c.

MARKKU, THE DIFFERENCE IN SPEED BETWEEN LIGHT AND NEUTRINOS WAS FOUND TO BE 20 PARTS PER MILLION. THAT IS AN EXTREMELY ACCURATE CALCULATION. ANOMALOUS DIFFRACTION IS A COMPUTATIONALLY FAST TECHNIQUE THAT OFFERS ONLY A VERY APPROXIMATE ESTIMATE (BASED ON INFINITE SERIES THAT APPROACH A LIMIT). HOW DO YOU FIGURE ANOMALOUS DIFFRACTION COULD BE CONSIDERED SIMILAR TO AN EXPERIMENT AS PRECISE AS THE ONE CONDUCTED AT CERN?

George

"Much science-fiction literature is based on the idea that, if the light-speed barrier can be overcome, time travel might theoretically become possible."

GEORGE, I SURE HOPE YOU'RE RIGHT. THEN SOMEONE COULD GO BACK IN TIME AND ABORT THE VIRGIN MARY BEFORE SHE GAVE BIRTH TO THE PERSON WHO WAS TO BE RESPONSIBLE FOR MORE INNOCENT DEATHS, MISERY, AND TORTURE THAN ANYONE WHO HAS EVER BEEN BORN.

MarkkuKoponen

What they need to show is that they can transmit bits of data faster than c.

MARKKU, A NEUTRINO IS A BIT OF DATA.

The Deuce

Big deal, so the consensus was slightly mistaken on one little thing!

DEUCE, YOU ARE MAKING THE SAME MISTAKE AS YOUR MASTER. YOU ARE THE VERY DEFINITION ... OF A SHEEP.

That just proves that science is self-correcting and that you should trust scientists!

DEUCE, THAT'S INTERESTING COMING FROM SOMEONE WHO TRUSTS ANCIENT GOAT HERDERS WHO CLAIMED THAT AN INVISIBLE GHOST WAS TELLING THEM WHAT TO WRITE DOWN. ACTUALLY, INTERESTING MAY NOT HAVE BEEN THE BEST WORD TO DESCRIBE WHAT PASSES FOR THINKING IN YOUR MIND.

The more important fact is that Darwinian evolution, unlike the entire edifice of modern physics, is still rock solid and certain, and all serious scientists agree on that consensus, you cave-dwelling rubes!

DEUCE, "CAVE-DWELLING RUBES?" IF YOU ONLY KNEW HOW CLOSE TO THE TRUTH YOU REALLY ARE.

ridip

The timing on this is impeccable. I just stopped mid-reply to George on the other thread about gods being changeable but not God. Why is it atheists always want to argue for morally changeable gods and yet immutable laws of physics? Hilarious.

RIDIP, ANYONE WHO ARGUES FOR MORALLY CHANGEABLE GODS ISN'T AN ATHEIST. ATHEISTS DO NOT SHARE YOUR BELIEF IN FANTASYLAND. AND NOTHING IS IMMUTABLE IN SCIENCE. THAT WAS A STRAW MAN ARGUMENT. EVERYTHING IN SCIENCE IS ALWAYS SUBJECT TO CHANGE UPON THE PRESENTATION OF NEW EVIDENCE.

I suppose in Scientody(?) the laws cannot change because they are the science fetishists' gods.

"SCIENTODY" RIDIP? SO YOU GUYS HAVE YOUR OWN SPECIAL LITTLE SECRET WORDS ... WHICH AREN'T ACTUALLY WORDS. THIS IS LIKE DEBATING WITH LITTLE KIDS.

P.S. God loves irony.

RIDIP, I AGREE. THAT EXPLAINS WHY GOD SENT MOSES TO FREE THE JEWS, AND THEN HARDENED PHARAOH'S HEART SO HE WOULDN'T LET THEM GO. WHAT A FUCKING PSYCHO YOU PEOPLE WORSHIP.

Wilman

I thought I read a couple of years ago that light particles had mass,

WILMAN, THAT'S WHAT HAPPENS WHEN YOU HANG OUT ON CREATIONIST WEB SITES: YOUR MIND PICKS UP GARBAGE. OR IT IS EQUALLY POSSIBLE TO CHALK IT UP TO CHRISTIAN HOME SCHOOLING SINCE ANY DECENT PUBLIC SCHOOL WOULD NEVER HAVE MADE SUCH A LAME MISTAKE.

VOX, I CAN SEE NOW WHY YOU ARE SO PROUD OF THE DREADED ILK. LIGHT HAS MASS. HOW CAN YOU LOSE WITH AN ARMY LIKE THIS?

and therefore wouldn't actually move at a constant speed (steady, though slight, loss due to friction). Did I stop reading on the subject too soon?

WILMAN, IF I WERE YOU, I WOULD JUST FORGET ABOUT READING ALTOGETHER.

VOX, I WOULDN'T BOTHER GIVING THE MENSA TEST TO THIS GUY.

Scotta

Maybe they can get some video game players to design the first Faster Than Light drive and then take credit for it.

SCOTTA, YOU MUST BE REFERRING TO VOX'S RECENT ARTICLE CLAIMING THAT GAMERS HAD SOLVED A MOLECULAR MONKEY-VIRUS PUZZLE THAT SCIENTISTS COULDN'T FIGURE OUT.

SCOTTA, I UNDERSTAND THAT MANY OF YOU BELIEVE THAT VOX IS THE CLOSEST THING ON EARTH TO THE VOICE OF GOD, AND THAT IS WHY YOU BLINDLY SWALLOW EVERY PUTRID MORSEL OF IGNORANCE THAT HE PUTS ON YOUR PLATE, BUT DIDN'T IT EVER OCCUR TO YOU THAT THE PROGRAM THAT SOLVED THE PROBLEM COULD ONLY HAVE BEEN DESIGNED BY THE SCIENTISTS THEMSELVES? DIDN'T YOU EVER FEEL TINY KNOCKS ON YOUR HEAD URGING YOU TO QUESTION HOW GAMERS, WHO KNEW NOTHING OF MONKEY VIRUS BIOLOGY, COULD SOLVE A PROBLEM THAT EXPERT SCIENTISTS IN THAT FIELD COULD NOT? OBVIOUSLY NOT.

THE GAMERS MERELY FOLLOWED THE INSTRUCTIONS GIVEN TO THEM. USING THE POWER OF 236,000 GAMERS, A SOLUTION WAS FOUND TO THE PROBLEM. THE WRITERS OF THE ARTICLE GRACIOUSLY (AND ERRONEOUSLY) GAVE CREDIT TO THE GAMERS WHO DID THE DRUDGE WORK. THE REAL CREDIT BELONGS TO THOSE WHO ACTUALLY DESIGNED THE PROGRAMS THAT LED TO THE DISCOVERY.

SCOTTA, THIS IS SIMPLE STUFF. IF YOU CAN'T SEE THROUGH THE EASY ONES, IT'S NO WONDER VOX CAN MOLD SUCH A SIMPLE MIND AS YOURS.

http://cosmiclog.msnbc.msn.com/\_news/2011/09/18/7802623-gamers-solve-molecular-puzzle-that-baffled-scientists

Idle Spectator

You're being sarcastic Vox, but this is fantastic news. If this turns out to be correct, it probably means that Quantum Mechanics is also an incomplete theory.

IDLE, CAN YOU NAME ONE THEORY THAT IS CONSIDERED COMPLETE? NO, YOU CAN'T, BECAUSE THERE IS NO SUCH THING. HOW COULD YOU DECLARE ANY THEORY COMPLETE WITHOUT KNOWING THE FUTURE? YOU COULDN'T.

ALL SCIENCE IS CONSTANTLY OPEN TO FUTURE DISCOVERIES.

SO THE VICTORY THAT YOU THINK YOU SEE, IS AS ILLUSORY AS EVERYTHING ELSE IN YOUR BELIEF SYSTEM. BUT THE GOOD THING ABOUT ALWAYS BEING WRONG IDLE, IS THAT AT LEAST YOU'RE CONSISTENT.

We might finally develop a new model that scraps all that uncertainty.

IDLE, THANKS FOR GIVING EVERYONE A CLEAR VIEW INTO THE RELIGIOUS MIND: UNCERTAINTY CAUSES YOU COGNITIVE DISSONANCE. UNFORTUNATELY, FOR YOU, IT IS UNLIKELY THAT UNCERTAINTY WILL EVER DISAPPEAR. THAT'S WHY YOU WORSHIP YOUR BIBLE. YOU BELIEVE IT GIVES YOU THE CERTAINTY THAT YOU SO DESPERATELY CRAVE. THAT JUST ADDS YET ANOTHER MENTAL DEFECT TO THE LIST, THAT CAN BE CHALKED UP TO RELIGION. A LIST THAT IS ALREADY LONGER THAN THE CODE OF HAMMURABI.

Taylor

Come on, people. Is it not obvious what's going on here? Global Warming! is causing these neutrinos to get super-excited and break even the laws of physics. For the love of Gaia, we must stop this insanity!!!

AH TAYLOR, THE BIG CHIHUAHUA IS BACK. YOU ACCEPT THAT NEUTRINOS MAY HAVE BROKEN THE LAWS OF PHYSICS BASED ON A TENTATIVE REQUEST FOR CONFIRMATION BY PHYSICISTS, BUT REJECT THE HUMAN-INDUCED GLOBAL WARMING CONSENSUS AGREED TO BY 97% OF THE WORLD'S CLIMATOLOGISTS.

TAYLOR, TAKE A SECOND TO SOAK IN THE INCONSISTENCY THAT PASSES FOR THOUGHT IN YOUR MIND, AND MAYBE ... NEVER MIND TAYLOR. WITH REASONING ABILITIES THAT FEEBLE, YOU'RE BETTER OFF JUST READING YOUR BIBLE AND SPENDING QUIET TIME WITH YOUR INVISIBLE FRIEND.

Matthew G

I'd like to note that we actually do know the exact value of the speed of light because we define 1m as 1/299,792,458 of the distance light travels in 1s.

Second, light can actually go faster than the speed of light in a vacuum, namely when it's traveling through Caesium (relativity only says that objects can't travel faster, light is fine).

MATTHEW, THE CAESIUM VAPOR EXPERIMENT WHICH CLAIMED THAT LIGHT TRAVELED OVER 300 TIMES FASTER THAN IT WOULD HAVE IN A VACUUM, HAS BEEN REJECTED BY MOST PHYSICISTS AS IT VIOLATES CAUSALITY.

El\_Borak

Vox, not sure if you've seen this, but it sure made me laugh:

"People with 'mild' forms of autism are more likely to be atheists, according to a controversial new study - and more likely to shun organised religion in general.

BORAK, THE REASON THAT THEY WERE MORE LIKELY TO SHUN RELIGION IS THAT RELIGION IS MORE LIKELY TO SHUN THEM, SINCE SHUNNING THOSE WHO ARE DIFFERENT IS WHAT RELIGION IS ALL ABOUT.

AND THE FACT THE AUTISTICS ARE MORE LIKELY TO BE ATHEISTS MADE ME LAUGH TOO BORAK, BUT PROBABLY NOT FOR THE SAME REASON AS YOU. I THOUGHT IT WAS HYSTERICAL BECAUSE THAT SHOULD GIVE YOU A PRETTY GOOD INDICATION, AS TO WHERE YOU GUYS FIT ... IN THE HIERARCHY.

The study, which looked at posts on autism forums, focused on people with high-functioning autism such as Asperger's. The study, from University of Boston, speculates that common autistic spectrum behaviours such as 'a preference for logical beliefs' and a distrust of metaphor and figures of speech, could be responsible.

SO BORAK, EVEN AUTISTICS ARE MORE LOGICAL AND SKEPTICAL THAN GHOST WORSHIPPERS? IT DOESN'T GET MUCH MORE HUMILIATING THAN THAT, DOES IT BORAK?

Well, I'll be honest, the "preference for logical beliefs" part is what made me laugh...

WELL BORAK, THEN I'LL BE HONEST TOO ... THAT'S THE PART THAT PUT ME ON THE FLOOR TOO; BUT I WOULD BE WILLING TO BET ... YOU STILL DON'T GET IT.

allyn71

My favorite quote from the article.

"Ereditato declined to speculate on what it might mean if other physicists, who will be officially informed of the discovery at a meeting in CERN on Friday, found that OPERA's measurements were correct. He said 'I just don't want to think of the implications. We are scientists and work with what we know.' "

It has to be the way we said. It just has to. The matter is closed. If you think matter can move faster than the speed of light then you are an idiot and a denier. Burn the heretic, Burn him. His heresy could spread and I would lose my grant.

ALLYN, WITH READING COMPREHENSION SKILLS THAT DEGRADED I TAKE IT YOU DIDN'T GET ALL THAT FAR IN YOUR HOME SCHOOLING. EREDITATO'S COMMENT IS IN NO WAY REFLECTED BY YOUR MISUNDERSTANDING OF WHAT HE SAID. THAT'S PROBABLY WHY HE'S A SCIENTIST ... AND YOU TALK TO INVISIBLE GHOSTS.

BUT YOUR CHOICE OF "BURN THE HERETIC" WAS QUITE UNFORTUNATE; EVEN STUPID CHRISTIANS WOULD HAVE KNOWN BETTER THAN TO USE WORDS THAT DESCRIBE YOUR OWN BLOODY, MORBID HISTORY. MAYBE HOME SCHOOLING IS THE BEST OPTION FOR PEOPLE LIKE YOU - IT WILL KEEP YOU HOME, AND REDUCE THE CHANCE OF INFECTING THE RATIONAL KIDS.

Stickwick

Matthew G: "relativity only says that objects can't travel faster, light is fine."

You mean particles with mass, and relativity sez they can get arbitrarily close to c, but never actually travel at the speed of light in a vacuum. There's a wrinkle to this, which is that some particles with mass can travel faster through certain media than light would, which gives rise to Cerenkov radiation.

STICKWICK, OTHER THAN SHOWING OFF THE FEW MINUTES YOU SPENT READING ABOUT CERENKOV RADIATION ON WIKIPEDIA, WHAT THE HELL HAS THAT GOT TO DO WITH MATTHEW'S ERRONEOUS STATEMENT?

I dig this statement from the article: Ereditato said, "I just don't want to think of the implications. We are scientists and work with what we know."

Stephen Hawking, take note.

STICKWICK, STEPHEN HAWKING HAS ALREADY TAKEN NOTE. HE DOESN'T BELIEVE IN YOUR GHOST BECAUSE, LIKE EREDITATO, HE ONLY WORKS WITH WHAT HE KNOWS, NOT WITH WHAT ... DELUSIONALS ASSERT.

The OASF

For those that actually engage in practical science... constants have always been regarded as fudge-factors. The speed of light issue gets more attention than it deserves, in my opinion, because its perceived nature serves the purpose of the evolutionist monks quite well.

OA, WHAT PERCEIVED NATURE IS THERE ... IN A MEASUREMENT OF SPEED? AND I WOULD BE INTERESTED TO HEAR HOW, IN YOUR MIND, YOU WERE ABLE TO CONNECT A MEASUREMENT OF SPEED ... TO EVOLUTION.

AND OA, YOU SHOULD HAVE BEGAN WITH "FOR THOSE WHO" NOT "FOR THOSE THAT." GRAMMAR AND CHRISTIANS: LIKE TRYING TO PUSH TOGETHER THE POSITIVE ENDS OF TWO MAGNETS.

bob k. mando

[Ereditato] said "I just don't want to think of the implications. We are scientists and work with what we know."

doesn't this statement imply that Ereditato thinks that scientists are psychologically incapable of discovering things?

SO BOB, LET'S ANALYZE THAT LITTLE GEM. YOU THINK THAT THIS SCIENTIST DOESN'T BELIEVE THAT SCIENTISTS ARE PSYCHOLOGICALLY CAPABLE OF DISCOVERING THINGS BECAUSE THEY ONLY WORK WITH WHAT THEY KNOW?

YOU KNOW BOB, THE MORE I THINK ABOUT WHAT YOU JUST SAID, IT BECOMES PRETTY CLEAR THAT YOUR FAMILY SWIMS IN THE SHALLOW END OF THE GENE POOL.

if you are a scientist and work with what you 'know', how can you possibly identify the 'unknown'? much less predict that it exists and how it functions?

BRILLIANT BOB, YOU REALLY GOT THEM ON THAT ONE.

at least he would be aware that 'Science' is NOT a great source of wealth/productivity. that's a big step up from a lot of ankle-biters around here.

BOB, YOU REMIND ME OF A YO-YO; ONLY WITH LESS BRAINS.

NOW MARKKU IS BACK. BOY, AFTER THOSE LAST FEW EGGHEADS, I CAN'T TELL YOU HOW GLAD I AM TO SEE HIM AGAIN.

MarkkuKoponen

Stingray: Good grief, Markku. Just what do you do in your spare time? I thought you developed games?

NOW MARKKU MODESTLY ANSWERS:

Although my major is software engineering, I have double minor in physics. Optics, in specific. But the focus isn't very strong. I have, for example, taken two courses in quantum mechanics.

MARKKU, ISN'T THAT SPECIAL: A LITTLE GHOST WORSHIPPER WHO HAS TAKEN A COUPLE OF CLASSES IN QUANTUM MECHANICS, NOW LECTURES THE SCIENTISTS AT CERN ON QUANTUM PHYSICS.

YOU KNOW MARKKU, I THINK YOU SHOULD WHIP THAT RESUME OVER TO CERN AS FAST AS YOU CAN. WHEN THEY SEE EVERYTHING YOU HAVE TO OFFER, I WOULDN'T DOUBT THEY WOULD FIRE 2 PHYSICISTS ON THE SPOT, TO MAKE ROOM SO THEY COULD AFFORD TO HIRE YOU AND FIX THIS PROBLEM. AND WHILE YOU'RE THERE, YOU CAN TELL THEM ALL ABOUT YOUR INVISIBLE GHOST.

LET'S SEE, THE MOST KNOWLEDGEABLE AND EXPERIENCED PHYSICISTS IN THE WORLD V. MARKKU'S TWO QUANTUM CLASSES? HMM, CAN I PHONE A FRIEND?

DaveD

If I'm understanding this correctly, what he's saying is that if they have, in fact, found what they think they have found, roughly 100 years of physics work just went out the window.

NO DAVE, YOU'RE NOT UNDERSTANDING THIS CORRECTLY. IN FACT, THAT WAS SO FAR OFF, YOU WEREN'T EVEN UNDERSTANDING IT "WRONGLY."

That is HUGE and rightfully unnerving to think that the foundation of everything you and hundreds (thousands?) of others think you know and have worked your whole life on is....wrong.

DAVE, THAT IS EXACTLY WHY BILLIONS OF GHOST WORSHIPPERS REFUSE TO ACCEPT THE FINDINGS OF SCIENCE: THAT YOUR MAGICAL MANUSCRIPTS, UPON WHICH YOU'VE BASED YOUR ENTIRE BELIEF SYSTEM, THE FOUNDATION OF EVERYTHING YOU THINK YOU KNOW, AND HAVE WORKED YOUR WHOLE LIFE ON, ARE NOTHING MORE THAN A COLLECTION OF HIDEOUS FAIRY TALES.

Jerome Horowitz

I suggest they start doing some reviewing of VSL- Variable Speed of Light (João Magueijo) and c decay (Barry Setterfield).

JEROME, BARRY SETTERFIELD? SERIOUSLY? EVEN YOUNG-EARTH CREATIONISTS ROLL THEIR EYES WHEN THAT GUY COMES AROUND. SCIENTISTS DIDN'T HAVE TO DISCREDIT HIS WORK - CREATIONISTS BEAT THEM TO IT.

JEROME, YOU SERIOUSLY NEED TO DEVELOP SOME CRITICAL THINKING SKILLS, OR AT LEAST SOME MINIMAL RESEARCH SKILLS. WHAT'S MOST AMAZING IS THE STUNNING ARROGANCE THAT YOU EXHIBITED BY SUGGESTING WHAT THE WORLD'S LEADING PHYSICISTS SHOULD BE REVIEWING, WHEN YOU HAVE JUST SHOWN YOURSELF TO BE AMONG THE PLANET'S MOST IGNORANT RESIDENTS (AND JEROME, I'M INCLUDING ANIMAL AND PLANT LIFE).

In Faster Than the Speed of Light, Magueijo reveals the short, brilliant history of his possibly groundbreaking speculation--VSL, or Variable Light Speed. This notion--that the speed of light changed as the universe expanded after the Big Bang--contradicts no less prominent a figure than Albert Einstein. Because of this, Magueijo has suffered more than a few slings and arrows from hidebound, jealous, or perplexed colleagues.

JEROME, YOU ARE PROBABLY THE ONLY PERSON ON EARTH WHO ACTUALLY GRANTS CREDIBILITY TO THIS FRUITCAKE OVER THE WORLD'S MOST RENOWNED SCIENTIST. WHY? BECAUSE FRUITCAKE TOLD YOU WHAT YOU WANTED TO HEAR.

YOU ARE PROOF JEROME, THAT INTELLIGENCE IS FOUND ON BOTH SIDES OF THE DEBATE - BUT THE MORONS ARE ONLY FOUND ON ONE.

POOR VOX. NO WONDER HE'S LOST NEARLY ALL HIS HAIR AT SUCH AN EARLY AGE: IF I HAD A GAGGLE OF LOBOTOMIZED FOLLOWERS EMBARRASSING ME WITH NONSENSE LIKE THAT, I WOULD HAVE CHECKED MYSELF INTO AN ASYLUM LONG AGO JUST TO ESCAPE THE MADNESS.

NPVIRR

But isn't this whole C-is-constant nonsense

NO NP, IT IS NOT NONSENSE BUT SCIENTIFIC FACT THAT C IS CONSTANT BASED ON CENTURIES OF OBSERVATIONS, AND ALSO ON OBSERVATIONS OF UNIVERSAL EVENTS THAT HAPPENED BILLIONS OF YEARS AGO.

just by the theory that black holes can hold light?

NO NP, THAT IS NOT WHY C IS CONSTANT.

If gravity affects light, then how can C be a constant?

NP, LOTS OF THINGS AFFECT LIGHT, SUCH AS WATER, WHICH SLOWS LIGHT DOWN TO .75C. WHEN SCIENTISTS SAY "CONSTANT" THEY ARE REFERRING TO THE SPEED MEASURED IN A VACUUM.

THANK GOD, MARKKU'S BACK.

MarkkuKoponen

TRIES TO EXPLAIN IT TO NPVIRR:

No, because what would be a differential distance between a point at the singularity and a point outside it in Euclidian space, is actually infinitely long in curved space-time. Light is still travelling at c, it just needs to travel an infinite distance to get outside the singularity. Which takes forever.

MARKKU, WHAT THE HELL ARE YOU DOING? YOU READ WHAT THAT MORON WROTE. HOW, IN YOUR WILDEST DREAMS, DID YOU DETERMINE THAT HE WOULD BE CAPABLE OF UNDERSTANDING ANY PART OF THAT EXPLANATION?

BY THE WAY MARKKU, DUE TO HAWKING RADIATION THE BLACK HOLE WILL EVENTUALLY EVAPORATE, SO LIGHT DOESN'T HAVE FOREVER. I'M SURE THEY MUST HAVE MENTIONED THAT IN ONE OF YOUR TWO QUANTUM CLASSES.

ALSO MARKKU, "WHICH TAKES FOREVER" IS NOT A SENTENCE BUT SHOULD HAVE BEEN PART OF THE PREVIOUS SENTENCE.

Time travel is quite simple, really.

MARKKU, THAT MUST BE WHY EVERYONE IS DOING IT, HUH?

BUT YOU HAVE TO BELIEVE IN TIME TRAVEL, DON'T YOU? BECAUSE IN YOUR BIBLE, GOD STOPPED THE SUN (AND TIME) FOR 24 HOURS. BUT GOD WENT A STEP FURTHER BY ONLY STOPPING IT IN THE MIDDLE EAST, BECAUSE NO ONE ELSE ON THE FACE OF THE EARTH EVEN NOTICED IT. NOWHERE ON EARTH WAS THIS EVENT RECORDED EXCEPT IN YOUR BIBLE. SO ANCIENT PEOPLE IN INDIA SAW THE SUN STOP FOR A DAY AND THOUGHT "SHOULD WE WRITE THIS DOWN?" "NAH, NO BIG DEAL."

AND ANOTHER TIME GOD MADE THE SUN GO BACKWARDS 6 HOURS; SO TIME WENT BACKWARDS.

YOU KNOW MARKKU, KNOWING THAT YOU PEOPLE ACTUALLY BELIEVE THAT THOSE STORIES ARE TRUE, MAKES IT CLEAR THAT YOUR ENTIRE NEST OF GHOST WORSHIPPERS ... IS CERTIFIABLE.

Stickwick

The God described in the Bible is dynamic.

STICKWICK, TALK ABOUT AN UNDERSTATEMENT. IF DYNAMIC INCLUDES MURDERING LARGE NUMBERS OF PEOPLE, AND SENDING HIS GOONS TO RIP THE FETUSES OUT OF THE WOMBS OF PREGNANT WOMEN, THEN GOD CERTAINLY MEETS YOUR CRITERIA FOR DYNAMIC. BY THE WAY STICKWICK, I DIDN'T MAKE THOSE STORIES UP, THEY ARE CONFESSIONS BY GOD HIMSELF FOUND IN HIS AUTOBIOGRAPHY; YOU KNOW, THE BIBLE.

See Schroeder's book, God According to God.

STICKWICK, SEE WIKIPEDIA: CIRCULAR REASONING.

TheAardvark

I believe that God has a book that he keeps in His nightstand. It contains all the things He hasn't told us. Late at night, He reads a few pages, and laughs.

AARDVARK, THE ONLY VERSES I KNOW OF WHERE GOD LAUGHS, ARE THOSE WHERE HE IS LAUGHING *AT* PEOPLE, AS IN PSALMS 2:4 AND PSALMS 37:13.

SO AARDVARK, YOU BELIEVE GOD READS BOOKS, AND KEEPS THEM IN A NIGHTSTAND? I DON'T KNOW WHICH IS SCARIER: THAT PEOPLE LIKE YOU VOTE, OR THAT YOU ARE ALLOWED OUT IN PUBLIC WITHOUT SUPERVISION.

Dr. T

Let's see if this claim holds. "We have broken the speed of light" is something that turns up every few years or so.

DR.T, THAT IS CORRECT. IN FACT, EARLIER ONE OF THE DREADED ILK MENTIONED CREATIONIST ASTRONOMER BARRY SETTERFIELD WHO CLAIMED IN HIS BOOK THAT THE SPEED OF LIGHT WAS ALMOST A MILLION TIMES FASTER THAN IT IS TODAY. AND WHAT A COINCIDENCE THAT WAS TOO: BASED ON HIS CALCULATIONS, THE EARTH IS ONLY ABOUT ... 6,000 YEARS OLD. WHO WOULD HAVE GUESSED HE WOULD COME UP WITH THAT NUMBER? THAT'S WHAT HAPPENS WHEN YOU START WITH THE ANSWERS AND WORK BACKWARDS, TRYING TO FORCE THE DATA TO FIT YOUR PRECONCEPTIONS.

DR.T, HERE IS WHY MOST PHYSICISTS DOUBT THAT THE RESULTS WILL HOLD UP: BASED ON THE RESULTS FROM CERN, NEUTRINOS FROM THE MASSIVE SUPERNOVA THAT EXPLODED IN 1987 SHOULD HAVE ARRIVED ON EARTH 4 YEARS BEFORE THE PHOTONS. BUT THEY DIDN'T. THEY ONLY BEAT THEM BY 3 HOURS. THE REASON THE NEUTRINOS ARRIVED FIRST IS BECAUSE THEY WERE EXPELLED FIRST. BUT HAD SUPERNOVA 1987A BEEN MUCH FARTHER AWAY, THE NEUTRINOS WOULD HAVE BEEN OVERTAKEN BY THE GREATER SPEED OF THE LIGHT.

http://en.wikipedia.org/wiki/SN\_1987A#Neutrino\_emissions

WHEN OBSERVATIONS IN THE REAL WORLD ARE CONTRADICTED BY HUMAN EXPERIMENTS, IT IS THE EXPERIMENTS THAT NEED TO BE BROUGHT INTO LINE, NOT REALITY.

Of course, there is always someone blabbing to the press prematurely.

DR.T, THAT WAS TRUE IN THE CASE OF COLD FUSION, AND THE MORE RECENT "DISCOVERY" OF A NEW LIFE FORM BASED ON ARSENIC. HOWEVER, IT DOESN'T APPLY IN THIS CASE. THEY MADE IT QUITE CLEAR WHY THEY WERE OPENING THEIR RESULTS UP TO OTHER SCIENTISTS, AND WERE CAREFUL NOT TO MAKE THE WILD CLAIMS THAT CAUSED THE PREVIOUS TWO EXAMPLES THAT I JUST MENTIONED, SO MUCH EMBARRASSMENT.

MarkkuKoponen

It isn't that spacetime is variable. Spacetime is the only thing that actually exists.

BUT MARKKU, IF SPACETIME IS THE ONLY THING THAT ACTUALLY EXISTS, AND YOUR GOD IS OUTSIDE OF TIME, DIDN'T YOU JUST PROVE THAT YOUR GOD ... DOESN'T EXIST?

MAN MARKKU, I WOULDN'T WANT TO BE IN YOUR PANTIES WHEN VOX FINDS OUT THAT ONE OF HIS DREADED ILK HAS JUST PROVEN WHAT NO ONE ELSE EVER COULD ... THE NON-EXISTENCE OF GOD.

NICE WORK, DUDE.

So, the behavior of distance near the singularity is not just an oddity in how light perceives it - you would perceive the distance as infinitely long too, if you could survive it. It is real, bona fide distance.

MARKKU, YOU LOST ME AGAIN (BUT I HAVE A GOOD EXCUSE: I ONLY HAD 1 SCIENCE CLASS AND THAT WAS TAUGHT BY A CREATIONIST). WHAT COULD YOU POSSIBLY MEAN BY "THE BEHAVIOR OF DISTANCE?" HOW DO YOU KNOW THAT PHOTONS CAN PERCEIVE BEHAVIOR? HOW COULD YOU PERCEIVE DISTANCE AS INFINITELY LONG WHEN NO ONE HAS EVER BEEN ABLE TO PERCEIVE INFINITY? HOW CAN THE CONCEPT OF INFINITY, REPRESENTED BY DISTANCE, BE REAL?

MARKKU, INQUIRING MINDS WOULD LIKE TO KNOW.

IM2L844

No matter how you look at it, somebody is wrong. Either the neutrino has a non-zero rest mass OR it moves faster than c. You can't have it both ways.

IM2L8, YOU CREATED A FALSE DICHOTOMY IN WHICH YOU ASSUMED YOUR CONCLUSION TO BE TRUE IN YOUR PREMISES. IF THEIR DISCOVERY IS TRUE, THEN YOU CAN HAVE IT BOTH WAYS. ONLY IF THEIR DISCOVERY IS DISPROVEN, OR CANNOT BE REPLICATED, WILL THE PARADIGM REMAIN AS IS.

If it has a non-zero rest mass, which is the general consensus, it would have infinite mass at the speed of light and exceed infinite mass at velocities that exceed the speed of light.

IM2L8, THAT IS WHY MOST PHYSICISTS BELIEVE THAT THE RESULTS WILL NOT BE REPLICATED.

That can't happen,

IM2L8, BAD IDEA TO MAKE ASSERTIONS. SAFER TO SAY "IT HAS NEVER HAPPENED, AND THEORY INDICATES THAT IT IS NOT POSSIBLE." THAT WAY WHEN SCIENTIFIC BREAKTHROUGHS DO OCCUR, YOU DON'T HAVE TO RUN TO THE KITCHEN TO FIND A TOWEL TO WIPE THE EGG OFF YOUR FACE.

so there is something else going on here. I suspect they have misinterpreted some probability distributions.

IM2L8, IF THE DREADED ILK ARE CORRECT, THE ANSWER IS FAR SIMPLER: IT'S JUST GOD SCREWING AROUND WITH US AGAIN.

BTW, if these results were totally unexpected, what the hell were they trying to measure and why?

IM2L8, THINK ABOUT WHAT YOU JUST SAID. YOUR QUESTION IMPLIES THAT IF SCIENTISTS TRY TO TAKE MEASUREMENTS FOR SOME REASON, THEN THEY SHOULD NOT ENCOUNTER RESULTS THAT ARE UNEXPECTED. IF I WERE YOU, I WOULD EMAIL MARKKU AND ASK HIM HOW YOU COULD GET INTO ONE OF THOSE TWO QUANTUM CLASSES HE TOOK. THEN YOU MIGHT LEARN THAT UNEXPECTED RESULTS ARE COMMONPLACE IN SCIENCE.

MarkkuKoponen

all matter is waves according to quantum mechanics.

MARKKU, IF ALL MATTER IS WAVES, THEN WAVE/PARTICLE DUALITY MUST BE AN ILLUSION. HAVE YOU NOTIFIED COPENHAGEN OF YOUR DISCOVERY YET?

HEY MARKKU, THAT'S ANOTHER GEM FOR YOUR RESUME. AFTER THEY SEE YOUR APPLICATION, I'LL BET THEY WON'T EVEN BOTHER INTERVIEWING YOU - THEY'LL JUST GIVE YOU A HUGE OFFICE WITH A GARDEN VIEW OVERLOOKING THE MAIN LAB FACILITY. YOU REALLY NEED TO GET THAT RESUME OVER TO CERN ASAP. AS INSIGHTS LIKE THAT ONE PROVE, EVERY DAY YOU DELAY, COULD BRING THE END OF LIFE ON EARTH ... AS WE KNOW IT.

MARKKU, HERE'S A LINK TO A RECENT STORY ABOUT THE DISCOVERY THAT ELECTRONS ARE THE ROUNDEST OBJECTS EVER DISCOVERED. SINCE YOU JUST DECLARED THAT ALL MATTER IS WAVES, I THINK YOU NEED TO EMAIL THESE GUYS AND GET THESE SCIENTISTS STRAIGHTENED OUT. MAYBE IF THEY HAD TAKEN A COUPLE OF QUANTUM MECHANICS CLASSES THEY WOULDN'T HAVE MADE SUCH AN IMPOSSIBLE CLAIM.

http://www.physnews.com/physics-news/cluster157539222/

rycamor

So if you would perceive the distance as infinitely long, then by your perception it would take an infinity to actually fall into the black hole, eh? That's the premise of at least one scifi story I've read, but I wonder if the math supports it.

DON'T WORRY ABOUT THE MATH, RYCAMOR - OBSERVATIONS DON'T SUPPORT IT. IF TRUE, BLACK HOLES WOULD STARVE TO DEATH. OUR OBSERVATIONS SHOW JUST THE OPPOSITE.

Joseph

Yea, the evolutionists have hope again.

JOSEPH, BEFORE YOU EMBARRASS YOURSELF FURTHER, TALK TO SOME OF THE BRIGHTER MEMBERS OF THE ILK (LIKE MARKKU) AND HAVE THEM EXPLAIN TO YOU THAT EVOLUTION HAS AS MUCH TO DO WITH THIS DEBATE AS MOHAMMED HAS TO DO WITH CHILD PROTECTIVE SERVICES.

Stickwick

To answer rycamor's question, from the point of view of an observer beyond the event horizon, you would appear to hover over the event horizon for an eternity,

STICKWICK, OBSERVATIONS DISPROVE YOUR CLAIM. WE ARE OBSERVERS BEYOND THE EVENT HORIZON, AND WE SEE BLACK HOLES EATING AND GROWING, AND WE SEE THEM INACTIVE AND WAITING. OUR VISIBLE UNIVERSE HAS ONLY EXISTED 13.7 BILLION YEARS. IF MATTER WERE HOVERING AT THE EVENT HORIZON FOR AN ETERNITY, OUR UNIVERSE WOULD NOT LOOK THE WAY IT DOES.

http://www.sciencedaily.com/releases/2011/10/111007103227.htm

Black hole devours a neutron star. Scientists say they have seen tantalizing, first-time evidence of a black hole eating a neutron star-first stretching the neutron star into a crescent, swallowing it, and then gulping up crumbs of the broken star in the minutes and hours that followed.

SO STICKWICK, IN YOUR WORLD ETERNITY CAN BE MEASURED IN HOURS?

NOW THAT SOUNDS LIKE THE GOD OF THE BIBLE I KNOW: PROMISE THEM ETERNITY, AND THEN LET THEM FIND OUT THAT IT ISN'T QUITE AS LONG AS THEY THOUGHT IT WOULD BE. HEY, DREADED ILK, IF YOU HURRY, YOU MIGHT STILL BE ABLE TO SWITCH OVER TO ISLAM. I DON'T KNOW HOW LONG THEIR ETERNITY IS, BUT AT LEAST YOU'LL GET DOZENS OF VIRGINS.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

THE SCIENCE SEGMENT

SCIENTISTS DISCOVER AN 'ENDURANCE GENE' FOR OLYMPIC-LEVEL ATHLETES

RESEARCHERS HAVE IDENTIFIED A GENE FOR ENDURANCE, OR MORE PRECISELY, A NEGATIVE REGULATOR OF IT. NOT HAVING THE GENE RELATES TO GREATER ENDURANCE IN THE MICE THAT WERE STUDIED. THE INVESTIGATORS ALSO SHOWED THAT THE GENE IS LINKED TO OLYMPIC-LEVEL ATHLETES IN ENDURANCE SPORTS SUCH AS SWIMMING COMPARED TO ATHLETES IN SPRINT SPORTS SUCH AS THE 100-METER DASH. THE WORK HAS IMPLICATIONS FOR IMPROVING MUSCLE PERFORMANCE IN DISEASE STATES INCLUDING METABOLIC DISORDERS, OBESITY, AND AGING.

RESEARCHERS HAVE SHOWN THAT MICE LACKING THE GENE RUN SIX TIMES LONGER THAN CONTROL MICE AND THAT THE FATIGABLE MUSCLES OF THE MOUSE -- THE FAST MUSCLE IN THE FRONT OF THE LEG -- HAVE BEEN REPROGRAMMED AND ARE NOW FATIGUE-RESISTANT. THIS HAS WIDE RAMIFICATIONS FOR VARIOUS ASPECTS OF MUSCLE BIOLOGY RANGING FROM ATHLETICS TO TREATING MUSCLE AND METABOLIC DISEASES.

THE GENE CODES FOR A PROTEIN CALLED INTERLEUKIN-15 RECEPTOR-ALPHA, WHICH ACTS ALONE OR IN CONJUNCTION WITH THE INTERLEUKIN-15 PROTEIN. INTERLEUKIN-15 RECEPTOR-ALPHA IS IMPORTANT IN THE IMMUNE RESPONSE, BUT IT ALSO HAS OTHER FUNCTIONS. INTERLEUKIN-15 AND INTERLEUKIN-15 RECEPTOR-ALPHA HAVE BEEN IMPLICATED IN MUSCLE PHYSIOLOGY, BUT THE EXACT ROLE IN MUSCLE FUNCTION HAS NOT BEEN DEFINED.

SLOW MUSCLES ARE USED FOR ENDURANCE AND FAST MUSCLES ARE USED FOR SPEED. THE CHAMPION FAST MUSCLES ARE THE MUSCLES MOVING THE EYE, BUT THEY ARE ALSO FATIGUE-RESISTANT, THE ONLY MUSCLES LIKE THIS.

IN THE INTERLEUKIN-15 RECEPTOR-ALPHA MOUSE USED IN THIS STUDY, FAST MUSCLES BEHAVE LIKE SLOW MUSCLES. THESE MICE RAN 6.3 TIMES GREATER DISTANCES AND HAD GREATER AMBULATORY ACTIVITY THAN CONTROLS. THEIR FAST MUSCLES DISPLAYED FATIGUE-RESISTANCE AND SLOWER CONTRACTIONS COMPARED TO FAST MUSCLES IN CONTROL MICE.

THEY ALSO SHOWED THAT THE LOSS OF INTERLEUKIN-15 RECEPTOR-ALPHA INDUCES A SHIFT IN HOW ENERGY IS BURNED IN FAST MUSCLES, SUBSTANTIALLY INCREASING FATIGUE RESISTANCE AND EXERCISE CAPACITY.

THE MOLECULAR SIGNATURE OF THE MUSCLES IN THE MICE INCLUDED A GREATER NUMBER OF ACTIVE TRANSCRIPTION FACTORS, WHICH INDICATES MORE MUSCLE FIBERS WITH MORE MITOCHONDRIA, AND THE MACHINERY TO BETTER PROCESS CALCIUM SINCE THIS CHEMICAL DRIVES MUSCLE CONTRACTION. MITOCHONDRIA ARE THE ENERGY STOREHOUSES OF THE CELL.

MORPHOLOGICALLY, THE FAST MUSCLES HAD A GREATER NUMBER OF MUSCLE FIBERS, SMALLER FIBER AREAS, AND A GREATER NUMBER OF NUCLEI PER FIBER. THE ALTERATIONS OF PHYSIOLOGICAL PROPERTIES AND INCREASED RESISTANCE TO FATIGUE IN THE FAST MUSCLES ARE CONSISTENT WITH A SHIFT TOWARDS A SLOWER, MORE OXIDATIVE MUSCLE TYPE IN THE MICE.

THE STUDY ALSO FOUND SIGNIFICANT ASSOCIATIONS BETWEEN THE GENE AND ELITE ENDURANCE ATHLETES AND HENCE SUPPORTS THE POSSIBILITY THAT THESE ATHLETES HAD A GENETIC PREDISPOSITION OR ADVANTAGE.

FROM THESE TWO LINES OF EVIDENCE, THE RESEARCHERS CONCLUDED THAT INTERLEUKIN-15 RECEPTOR-ALPHA PLAYS A ROLE IN DEFINING THE FUNCTION OF FAST SKELETAL MUSCLES.

IMPORTANTLY, THE STUDY DEMONSTRATES THAT MUSCLES CAN BE REPROGRAMMED TO PERFORM MUCH BETTER AT ENDURANCE SPORTS AND HENCE INTERLEUKIN-15 RECEPTOR-ALPHA MANIPULATION IS OF GREAT IMPORTANCE FROM AN ATHLETIC DOPING STANDPOINT AS CURRENTLY IT IS NEITHER TESTED FOR NOR DO METHODS EXIST TO DETECT ITS MISUSE BY ATHLETES. THE INVESTIGATORS ARE WORKING TOWARD THIS.

THIS RESEARCH IDENTIFIES A "DRUGGABLE TARGET" THAT ALLOWS POSSIBLE REPROGRAMMING OF MUSCLE FUNCTION BY INCREASING GENES, PROTEINS AND PATHWAYS TYPICALLY EXPRESSED IN SLOW OR FATIGUE-RESISTANT MUSCLE, SIMILAR TO ADAPTATIONS SEEN AFTER ENDURANCE EXERCISE. IT IS WIDELY ACCEPTED THAT THESE TYPES OF ADAPTATIONS WOULD BE BENEFICIAL OR PROTECT AGAINST OBESITY, DIABETES AND AGING AND MAY HELP AMELIORATE PATHOLOGY IN MYOPATHIES SUCH AS MUSCULAR DYSTROPHY.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

FAMOUS QUOTES

ASHLEY MONTAGU (1905-1999) 94 YEARS.

HE WAS A BRITISH-AMERICAN ANTHROPOLOGIST AND HUMANIST WHO POPULARIZED TOPICS SUCH AS RACE AND GENDER AND THEIR RELATION TO POLITICS AND DEVELOPMENT.

“THE GOOD BOOK--ONE OF THE MOST REMARKABLE EUPHEMISMS EVER COINED.”