**AUGUST 10, 2008 THESKEPTICARENA.COM**

**Argument # 7: "The burden of proof is on the claimant."**

**When Skeptics who dismiss or deny are challenged to disprove something, they typically respond with this argument which states that since they are not the ones making the claim, they don't have to disprove anything, but that the burden of proof is on the claimant.**

**WINSTON, THAT IS COMPLETELY TRUE. NOW YOU ARE GOING TO COMMIT THE LOGICAL FALLACY OF “SHIFTING THE BURDEN.” PROCEED WINSTON.**

**This argument is similar to the "Extraordinary claims require extraordinary evidence".**

**NO WINSTON, THE TWO ARE NOT RELATED AT ALL. IN FACT, I ALREADY AGREED WITH YOU THAT “EXTRAORDINARY CLAIMS DO NOT REQUIRE EXTRAORDINARY EVIDENCE.” BUT I COMPLETELY DISAGREE WITH YOU ON THE ISSUE OF “BURDEN OF PROOF.” THEY ARE ABOUT AS CLOSELY RELATED AS MY RATIONAL MIND IS TO YOUR IRRATIONAL MIND.**

**While this may be sound sensible on the surface, it poses some problems for the skeptics' pursuit of knowledge.**

1. **First of all, as I said before, just because one is unable to prove something to others doesn't mean that it is false or nonexistent. For instance, I can't prove what I dreamed about or thought about yesterday, but that doesn't mean that it didn't happen.**

**WINSTON, THAT IS TRUE.**

**Also, I can't conclusively prove that I saw a certain movie last month either. The skeptics could say that my saved ticket stub was stolen or forged, that my memory of the movie was obtained from hearing about it, that the people that were with me in the theater only constitute testimony and not proof, etc.**

**WINSTON, IF SKEPTICS MADE A CLAIM THAT YOU STOLE THE TICKET, THEN THEY WOULD HAVE THE BURDEN OF PROOF TO SHOW THAT YOU STOLE OR FORGED IT. AS FOR YOUR MEMORY BEING MADE BY HEARING ABOUT THE MOVIE - THAT MAY OR MAY NOT BE TRUE: IT WOULD DEPEND ON WHAT OTHER EVIDENCE EXISTED. THE PEOPLE WITH YOU IN THE THEATER MAY OR MAY NOT BE TELLING THE TRUTH - IT ALL DEPENDS ON HOW MUCH YOU PAID THEM.**

**You see, there is no way it could be proven 100 percent.**

**WINSTON, FORGET ABOUT THE 100%. NOW YOU ARE TALKING ABOUT THE SUBJECT OF CERTAINTY. ONLY IN RELIGION IS ABSOLUTE CERTAINTY CLAIMED. SCIENCE NEVER CLAIMS ABSOLUTE CERTAINTY.**

**Anyone who wants to deny can always find a reason to. The burden of proof may be on the claimant for the scientific and skeptical community to accept it, which is fine and understandable. But this argument is no grounds to use to dismiss claims and explain them away with alternate explanations, which skeptics like Michael Shermer tend to do. That would be more of what a cynic does. After all, why is a debunker's subjective dismissal more credible than one's direct experience? Skeptics can dismiss all they want, but they never seem to understand that they are doing it on purely subjective and speculative grounds.**

**WINSTON, YOU’RE AVOIDING THE POINT. SKEPTIC’S AREN’T DENYING - THEY ARE DEMANDING PROOF. THAT IS NOT THE SAME THING. YOU TRY TO MAKE THE DEMAND FOR PROOF APPEAR TO BE THE SAME THING AS DENIAL, FOR ONE REASON - YOU DON’T HAVE THE PROOF. IF YOU DID, THEN THERE WOULD BE NO PROBLEM IN THE FIRST PLACE.**

1. **Second, this argument does nothing to aid the skeptic's understanding of the paranormal.**

**WINSTON, WITHOUT PROOF, THERE IS NOTHING TO UNDERSTAND.**

**All it does is maintain the status quo of their own beliefs. If skeptics want some proof for something, they have to go find it themselves.**

**NO WINSTON. IT IS NOT THE DUTY OF SKEPTICS OR ANYONE ELSE TO GO FIND YOUR EVIDENCE FOR YOU.**

**Though not all paranormal experiences and encounters can be found by those willing to seek, some of them can at least. But asking a claimant to hand over proof on a silver platter isn't really going to lead anywhere.**

**WINSTON, IT WOULD IF THEY HAD THE EVIDENCE.**

**That's not how it works.**

**WINSTON, SOMEDAY WHEN YOU ARE KING, THE WORLD CAN WORK THE WAY YOU WANT IT TO. IN THE MEANTIME, SCIENCE WILL CONTINUE TO DEMAND PROOF BEFORE BELIEF IS GRANTED.**

**ONLY RELIGION WORKS THE WAY YOU WANT IT TO. SO GRAB YOUR BIBLE, GET DOWN ON YOUR KNEES, AND PRAY TO YOUR GOD. THAT SHOULD KEEP YOU OUT OF TROUBLE, AT LEAST FOR AWHILE.**

**How would one hand over proof of ghosts, UFO's, mystic experiences, or telepathic experiences, to a skeptic?**

**WINSTON, THAT IS DONE ALL THE TIME. THE PROOF JUST NEVER STANDS UP TO SCRUTINY.**

**Can one take a piece of a ghost and bring it back?**

**WINSTON, YOU COULDN’T POSSIBLY GET MORE GHOSTLIKE THAN NEUTRINOS. THEY PASS THROUGH ALL MATTER AND MAKE CONTACT ALMOST NEVER. YET HUMANS HAVE PROOF OF THEIR EXISTENCE. IF WE CAN FIND SOMETHING AS DIFFICULT TO LOCATE AS NEUTRINOS, THEN PROOF OF YOUR GHOSTS SHOULD BE A PIECE OF CAKE.**

**Skeptics who want to investigate ghosts and UFO's should talk extensively to the eyewitnesses and perhaps spend some nights over in a haunted place, rather than just sitting back and thinking up their own explanations for it.**

**WINSTON, YOU’RE WAY BEHIND THE CURVE. YOUR SUGGESTIONS HAVE ALREADY BEEN TRIED.**

**Even the well-liked late Carl Sagan, who dismissed alien abductions offhand in his book The Demon Haunted World, never bothered to interview any abductees to learn about the abduction experience. That's certainly not the action of someone trying to understand something or looking for the truth. If a skeptic wants proof of metaphysical realities through mystical experiences or OBE's, they will have to do the work required to experience it themselves. There are a variety of techniques for inducing OBE's and astral projections.**

**WINSTON, YOU ARE STARTING TO SCARE ME.**

**However, most skeptics are unwilling to do these types of things because they consider it a waste of their time since they don't think it's real. Instead, they lazily offer this argument, which makes sense scientifically, but progresses them nowhere in their knowledge or exploration. In fact, not bothering to investigate or experience something yourself, but just sitting back lazily and using this argument makes no sense.**

**WINSTON, WHEN I COMPARE CARL SAGAN’S LEGACY TO SAY, YOURS, I FIND IT COMICAL THAT YOU WOULD CALL HIM LAZY. IF YOU EVER ACHIEVE EVEN A FRACTION OF WHAT HE DID, PEOPLE MIGHT STOP LAUGHING AT YOU.**

1. **Third, the claimant who already has his/her proof doesn't need to prove it to others to validate their experiences.**

**THAT’S RIGHT WINSON, YOU CAN BELIEVE ANYTHING YOU WANT. IT IS ONLY WHEN YOU TRY TO CONVINCE OTHERS THAT YOU MIGHT BE ASKED FOR PROOF.**

**NDEers often emphasize this. Their personal proof from their experience or encounter is a blessing, gift or message meant for them, not for the skeptics. In other words, the claimants, if sincere, have already proved it to themselves. Whether or not skeptics accept the proof is inconsequential to them. Skeptics can believe what they want, but what they think does nothing to change the reality of a paranormal phenomenon.**

**WINSTON, THE “REALITY OF THE PARANORMAL PHENOMENON” IS THE ISSUE. JUST BECAUSE BELIEVERS THINK IT IS REAL DOES NOT MAKE IT REALITY. YOU ARE CONFUSING IMAGINATION WITH REALITY.**

**The skeptics who only want to see proof from other people without looking for it themselves is totally missing out on their own transcendental experiences.**

**WINSTON, STUDYING REAL SCIENCE IS A TRANSCENDENTAL EXPERIENCE FAR GREATER THAN ANY IMAGINARY SCENARIO YOU CAN OFFER.**

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**THE SCIENCE SEGMENT: TIME DILATION**

**Evidence for Time Dilation: Dying Muons (The Fitzgerald Contraction)**

**The first clear example of time dilation was provided over fifty years ago by an experiment detecting muons. These particles are produced at the outer edge of our atmosphere by incoming cosmic rays hitting the first traces of air. They are unstable particles, with a "half-life" of 1.5 microseconds (1.5 millionths of a second), which means that if at a given time you have 100 of them, 1.5 microseconds later you will have about 50, 1.5 microseconds after that 25, and so on. Anyway, they are constantly being produced many miles up, and there is a constant rain of them towards the surface of the earth, moving at very close to the speed of light. In 1941, a detector placed near the top of Mount Washington (at 6000 feet above sea level) measured about 570 muons per hour coming in. Now these muons are raining down from above, but dying as they fall, so if we move the detector to a lower altitude we expect it to detect fewer muons because a fraction of those that came down past the 6000 foot level will die before they get to a lower altitude detector. Approximating their speed by that of light, they are raining down at 186,300 miles per second, which turns out to be, conveniently, about 1,000 feet per microsecond. Thus they should reach the 4500 foot level 1.5 microseconds after passing the 6000 foot level, so, if half of them die off in 1.5 microseconds, as claimed above, we should only expect to register about 570/2 = 285 per hour with the same detector at this level. Dropping another 1500 feet, to the 3000 foot level, we expect about 280/2 = 140 per hour, at 1500 feet about 70 per hour, and at ground level about 35 per hour. (We have rounded off some figures a bit, but this is reasonably close to the expected value.)**

**To summarize: given the known rate at which these raining-down unstable muons decay, and given that 570 per hour hit a detector near the top of Mount Washington, we only expect about 35 per hour to survive down to sea level. In fact, when the detector was brought down to sea level, it detected about 400 per hour! How did they survive? The reason they didn't decay is that in their frame of reference, much less time had passed. Their actual speed is about 0.994c, corresponding to a time dilation factor of about 9, so in the 6 microsecond trip from the top of Mount Washington to sea level, their clocks register only 6/9 = 0.67 microseconds. In this period of time, only about one-quarter of them decay. What does this look like from the muon's point of view? How do they manage to get so far in so little time? To them, Mount Washington and the earth's surface are approaching at 0.994c, or about 1,000 feet per microsecond. But in the 0.67 seconds it takes them to get to sea level, it would seem that to them sea level could only get 670 feet closer, so how could they travel the whole 6000 feet from the top of Mount Washington? The answer is the Fitzgerald contraction---to them Mount Washington is squashed in a vertical direction (the direction of motion) by a factor of 1/sqrt(1-v²/c²), the same as the time dilation factor, which for the muons is 9. So, to the muons, Mount Washington is only 670 feet high---this is why they can get down it so fast!**

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**THE ARENA GOES ABROAD**

**NEW DELHI -- August 3, 2008.**

**Thousands of panicked pilgrims stampeded Sunday at a remote mountaintop temple in northern India during celebrations to honor a Hindu goddess, sending dozens of people plummeting to their deaths and trampling scores more. Police said 145 people were killed.  
  
Rumors of a landslide apparently started the panic at the shrine in the foothills of the Himalayas, said C.P. Verma, a senior government official in the Bilaspur district.  
  
Pilgrims already at the Naina Devi Temple began running down the narrow path leading from the peak. There, they collided with devotees winding their way up.  
  
With a concrete wall on one side and a precipice on the other, there was nowhere to escape and they were crushed. At one point a guard rail broke and dozens of people fell to their deaths.  
  
The bodies of the devotees - many dressed in brightly colored holiday clothes - carpeted the path, intertwined with flattened iron railings. Many still held the flowers and food they planned to offer at the temple.  
  
Police said they used a cable car at the shrine to ferry some of the bodies down, and helicopters flew in to take the wounded to hospitals.  
  
At the Bilaspur hospital in Himachal Pradesh state, rescue workers unloaded bodies wrapped in brown blankets from a truck and laid them in neat rows so they could be identified by relatives.  
  
"I rushed to the spot in search of my three children who had gone to pay obeisance at the hilltop shrine," Jawahar Khurana told the Press Trust of India news agency as he searched the bodies.  
  
"I fail to understand why God was so cruel to us," he said.  
  
All the bodies were taken to the Anandpur Sahib hospital in the neighboring state of Punjab where authorities were carrying out autopsies, senior police officer R. N. Dhoke told The Associated Press by telephone from the hospital. He said the death toll was not expected to rise further.  
  
Many of the dead were women and children, he said, and another 37 people were injured and in hospital.  
  
Tens of thousands of worshippers had flocked to the remote temple in the foothills of the Himalayas to celebrate Shravan Navratras, a nine-day festival that honors the Hindu goddess Shakrti, or divine mother.  
  
The temple is about 155 miles northeast of New Delhi.  
  
Deadly stampedes are a relatively common occurrence at temples in India, where large crowds - sometimes hundreds of thousands of people - congregate in small areas lacking facilities to control such big gatherings.  
  
Sunday was the second day of the festival and authorities sought to reassure other pilgrims. "There is no need to panic, everything is normalized now," Verma said.**

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**FAMOUS QUOTES**

**CARL SAGAN (November 9, 1934 – December 20, 1996) 62 years.**

**He was an American astronomer, astrochemist and highly successful popularizer of astronomy, astrophysics and other natural sciences. He pioneered exobiology and promoted the Search for Extra-Terrestrial Intelligence (SETI).**

**He is world-famous for writing popular science books and for co-writing and presenting the award-winning 1980 television series Cosmos: A Personal Voyage, which has been seen by more than 600 million people in over 60 countries, making it the most widely watched PBS program in history. A book to accompany the program was also published. He also wrote the novel Contact, the basis for the 1997 film of the same name starring Jodie Foster. During his lifetime, Sagan published more than 600 scientific papers and popular articles and was author, co-author, or editor of more than 20 books. In his works, he frequently advocated skeptical inquiry, secular humanism, and the scientific method.**

**SAGAN QUOTES:**

**"How is it that hardly any major religion has looked at science and concluded,**

**`This is better than we thought! The Universe is much bigger than our prophets said, grander, more subtle, more elegant`?**

**Instead they say, 'No, no, no! My god is a little god, and I want him to stay that way.'**

**A religion, old or new, that stressed the magnificence of the Universe as revealed by modern science might be able to draw forth reserves of reverence and awe hardly tapped by the conventional faiths."**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"But I try not to think with my gut.**

**Really, it's okay to reserve judgment until the evidence is in."**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"Further, fear of death,**

**which in some respects is adaptive in the evolutionary struggle for existence,**

**is maladaptive in warfare.**

**Those cultures that teach an afterlife of bliss for heroes -**

**or even for those who just did what those in authority told them -**

**might gain a competitive advantage."**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_“Somewhere, something incredible is waiting to be known.”**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_“The method of science, as stodgy and grumpy as it may seem,**

**is far more important than the findings of science.”**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_“In science it often happens that scientists say,**

**`You know that's a really good argument; my position is mistaken,'**

**and then they would actually change their minds**

**and you never hear that old view from them again.**

**They really do it.**

**It doesn't happen as often as it should,**

**because scientists are human and change is sometimes painful.**

**But it happens every day.**

**I cannot recall the last time something like that happened in politics or religion.”**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"Science . . . looks skeptically at all claims to knowledge, old and new.**

**It teaches not blind obedience to those in authority but to vigorous debate,**

**and in many respects that's the secret of its success."**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_“I maintain there is much more wonder in science than in pseudoscience.**

**And in addition, to whatever measure this term has any meaning,**

**science has the additional virtue, and it is not an inconsiderable one, of being true.”**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_“Those afraid of the universe as it really is,**

**those who pretend to nonexistent knowledge**

**and envision a Cosmos centered on human beings**

**will prefer the fleeting comforts of superstition.”**