

Re: Twin Paradox a blasphemy to Relativity

Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2005-02/2114.html>

From: PD (*pdraper_at_yahoo.com*)

Date: 02/09/05

Date: 9 Feb 2005 05:09:56 -0800

TomGee wrote:

> *PD wrote:*

> > *TomGee wrote:*

> > > *Of course you can tell who is moving faster. In order for the ship*

> > *to*

> > > *leave Earth, it must move faster than the Earth is moving. In*

> *order*

> > > *for the ship to catch up with the Earth on its return to it, the*

> *ship*

> > > *must go faster than the Earth.*

> > > *TomGee*

> >

> > *You're kidding, right?*

> >

> > *I throw an apple out of a moving car moving at 60 mph and it leaves*

> *the*

> > *car with a relative velocity of 5 mph.*

> >

> >

> *You can throw an apple out of a car at 5mph but you cannot escape the*

> *gravity of Earth at 5mph.*

You have no idea what you're talking about. The escape velocity from the Earth does not imply that a rocket has to be launched in the same direction as the Earth is moving. If the Earth is moving at V with respect to the rest of the solar system and the escape velocity of the rocket is v , then if the rocket might have any velocity between $V+v$ and $V-v$ with respect to the solar system and still escape the Earth's gravity.

> >

> >

> > *Now, on the basis of that information, you tell me whether I threw*

it

> > *forward (so it's going faster than the car) or backward (so it's*

> *going*

> > *slower than the car*).

> >

> >

> *Not the same at a rocketship having to go faster than the Earth in*
> *order to escape its gravity. Your car is moving faster than the*
Earth
> *even if it's only going 5mph. The 5mph is IN ADDition to the speed*
of
> *the Earth since your car is moving at Earth speed when standing*
still.

And this is crap, too. The Earth rotates from west to east at 1000 mph at the equator. An airplane traveling with ground speed 500 mph will be going 1500 mph with respect to the sun if flying from west to east, and 500 mph with respect to the sun if flying from east to west.

>

> >

> >

> > *Timmy gets hit with the apple and so he picks up a rock and throws*
it
> > *at me in the moving car and it hits me in the nose with a relative*
> > *velocity of 80 mph.*
> > *Now, on the basis of that information, you tell me whether he threw*
> *it*
> > *forward (so it's going faster than the car) or backward (so it's*
> *going*
> > *slower than the car).*
> >

> *He has to throw it faster than the car is moving in order for it to*
> *catch up with the car. Whether Tim threw it forward or backward is*
not
> *relevant in this experiment.*

And this is still further crap. If Timmy is in front of the car, and he throws it backward at 20 mph, it will hit me in the nose at 80 mph. If Timmy is in back of the car, he will have to throw it 140 mph to have it hit me in the nose at 80 mph. Either way is possible and you can't distinguish them from the information given.

Tom, you have little to no understanding of relative motion. I could give you some practice problems to try to correct that, if you like...

>

> *TomGee*