Assignment #7. Philosophical Consequences

1. The "Dynamical Relationalist" interpretation of Special Relativity claims that mass and energy are different properties (just as they are in Newtonian physics). How can this claim be made compatible with the notion that mass and energy are "equivalent", under Einstein's equation $E = Mc^2$?

2. You and your friend are arguing over whether or not Brad Pitt is a good actor. You claim he was good as Achilles in "Troy", but horrible as John Smith in "Mr. and Mrs. Smith". Your friend responds: "According to Special Relativity, *everything* is relative. There are no *absolute standards* of taste; so your opinion is just as relevant as the next person's." Given what you know about Special Relativity, how would you respond?

3. Your friend from #2 claims he's just learned that, according to Special Relativity, "Time is the fourth dimension". How could you (patiently) explain to him that this is not a relevant moral to draw from Special Relativity?