Possible Writing Assignment

About two pages. Due Thursday, Sept. 28 before class so that we can discuss it. Best is to send it as an attachment to: bricker@philos.umass.edu.

Consider a world of two-dimensional people who inhabit the two-dimensional surface of a torus. (A torus is shaped like a doughnut. If you have trouble visualizing it, go out and buy a doughnut and keep it on your desk as you write this paper.) Assume that their measuring rods do not change in shape as they are moved from place to place, and that light rays always travel the shortest distance (on the surface!) between two points. Describe some of the experiences that the doughnut people would have that might lead them to believe that they lived on the surface of a torus. Suppose that some two-dimensional Poincare claims that all the above experiences can be reinterpreted so as to uphold the hypothesis that they live on an ordinary two-dimensional Euclidean plane. How might this reinterpretation go, and to what extent can it succeed?