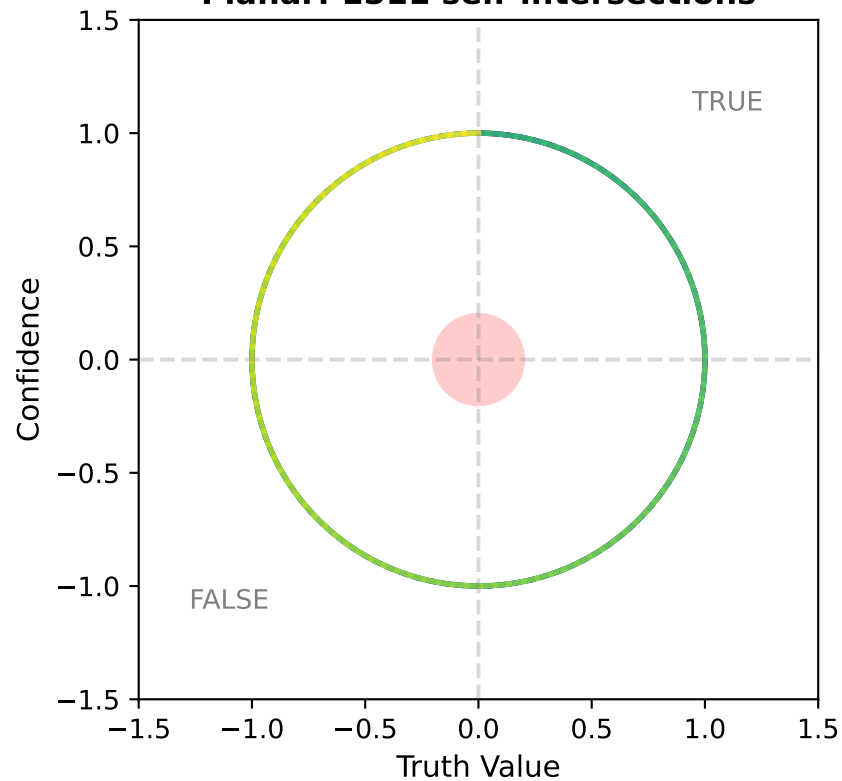# The Liar's Paradox: Dimensional Requirements for Self-Reference

A. Gamma Regime (k=2)
Planar: 1511 self-intersections

B. Beta Regime (k=3)
Helix: 0 self-intersections