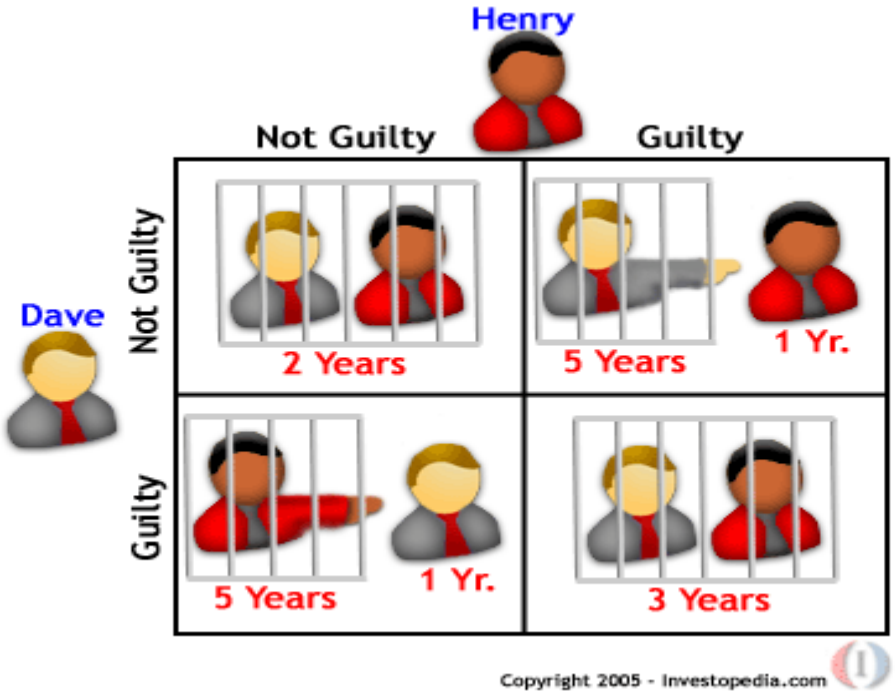
Joint CS/Physics COLLOQUIUM



Dr. David Wolpert
NASA Ames Research Center

A predictive theory of games

Abstract

Many important prediction problems in machine learning concern systems that contain goal-directed ``players'' who are engaged in a non—cooperative game. Conventional game theory predicts that the joint (mixed) strategy of such players must satisfy an equilibrium concept. The relative probabilities of strategies satisfying that concept are not specified, and all other strategies are deemed impossible. As an alternative, in this paper we use statistical inference to predict the joint strategy. This transforms the prediction problem from how to specify a set of equilibrium joint strategies to how to specify a density function over all joint strategies.

5:30-6:30 p.m., Thursday, April 17th
McKee Fisk 208
NOTE Special Time/Place