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**Charles Andrew Tannouri\*** (Yagno2000@gmail.com). *Be Rational! An Examination of Player Motives and Utility*. Preliminary report.

In game theory, a rational player is defined to be one who acts to maximize his or her utility. However, a player often makes decisions which seem counterintuitive to the goal of maximizing utility. When rational decisions are not taken, two factors must be taken into account. First, the motivations for making an irrational decision must be weighed against the benefit of an optimal strategy. Second, a player's understanding and awareness of the optimal strategy must be assessed.

The actions and interactions of such players will be examined and compared to optimal strategies per the concepts of game theory. This analysis will then be used to discuss the fundamental question of whether or not games are a reasonable predictor of many aspects of human life such as economics, job competition, and social interaction. The applications of such a model will be expanded upon and applied to the discussion of the spread of disease as a zero-player game, a two-player game, or an n-player game. (Received September 16, 2008)