



## Coexistence of game theory in social science

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### Abstract

The object of this article is to demonstrate the possibilities of games theory as an instrument for study of social science. The approach to be used describe elementary games theoretic models as an integral part of social science with a collection of example to understand subject better. This paper addressed to theoreticians and practitioners of social science not particularly versed in games theory, rather than to those who are fluent in its mathematical language and intricacies.

**Keywords:** Best strategies, Game theory, Nash equilibrium, Social science

**Mathematics Subject Classification [2010]:**

## 1 Introduction

Social science of game theory just as microeconomic theory has sometimes been said to be applied branch of calculus. The following examples present a simplified application of game theory. These provides an opportunity to describe the main steps needed to construct a game theoretical model of real events and also to elaborate on some of the contributions that game theory can make to the study of social science. Reader must know to that target of this article is to avoid from complex mathematical calculation and with a large number of example help reader to be skill to give number to social science events. We hope that we are successful in reaching to this target. We will start with a simple example which all of us have done in childhood.

### Example 1.1. “the warfare Game”

This game helps government to solve bad social Phenomenon of begging this game advice which strategy is better to face this phenomenon:

(1)

We can consider that there is not Nash equilibrium. We can understand best strategy for government when the beggar decide to work is supporting, and when they decide to begging is unsporting.

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