THE INFLUENCE OF SOCIAL ORIENTATION AND GENERALIZED EXPECTANCIES
ON DECISION MAKING IN ITERATED EXPERIMENTAL GAMES*

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Abstract: Outcome preferences, anticipations, and choice intentions or choices were investigated in a group of eight Prisoner's Dilemma Game matrices with different degrees of conflict severity. The variables were recorded with a computer assisted questionnaire and during the initial period of a sequence of games. Results from 106 subjects showed that their social 'motives' remained essentially stable across the different games. Expectancies and choices were strongly dependent on social 'motives'. The majority of choices could be explained with the social 'motives' and the expectancies in line with the expectancy-conditional maximization of preference.

1. Introduction

1.1 The significance of the first game for the complete sequence of games

The following paper is concerned with iterated conflict games with two players. Each subject has two choices available, and the games are played without communication. The games are non-zero-sum games, and the payoff matrices are symmetrical. The most well-known representative of this group of games is the Prisoner's Dilemma Game (PDG).

Sequences of such games have been thoroughly researched. Studies investigating the course of choice behavior in a sequence of games have, in particular, repeatedly indicated a stable, so-called "primacy effect" (e.g., RAPOPORT/CHAMMAH, 1965; KRIVOHLAVY, 1974; RAPOPORT/GUYER/GORDON, 1976). This primacy effect takes the following form: In the first game, after an originally relatively high probability for a 'cooperative' choice, this probability for 'cooperative' choices sinks drastically in the periods that directly follow, and only again approaches its starting level after a
considerable number of periods. (The term period is used to define a single game within a sequence of games.) Investigations that studied the dependence of the initial games have shown that the course of the initial game sequence is to a large extent dependent on the choices made by both players in the first game, so that one can say that the first period of a game sequence holds a particular significance for the course of the following games.

1.2 Variables that influence the game behavior in the first period

One of the more prominent approaches to an explanation for this primacy effect has been formulated by KELLEY/STAHELSKI (1970). Their so-called "assimilation effect" arises if a 'competitive' subject is playing against a 'cooperative' subject. These authors point out the function played by expectancies about the behavior of game partners. Such generalized expectancies about the behavior of interaction partners in social situations have been learned. In the 'triangle' hypothesis, it is postulated that they depend on the subject's social orientation. Combined with the orientations, expectancies determine the choice behavior in the first period. KELLEY/STAHELSKI's findings have received some empirical support from the work of MILLER/HOLMES (1975), and SCHLENKER/GOLDMAN (1978).

These investigations have drawn attention to two major groups of variables that are acquired through socialization in general and the players' experiences in social interactions before the game experiment:

(1) Social motives that give rise to outcome preferences by both players as a consequence of the special payoff structure of the experimental game. Outcome preferences can also be influenced by strategic considerations. For this reason, the concrete outcome preferences should also be called social orientations. The marked influence that such orientations have on game behavior has been shown by many investigations (e.g. MESSICK/McCLINTOCK, 1968; KUHLMAN/MARSHELLO, 1975; STOECKER, 1980; LIEBRAND 1982, 1984; WENDT/POPP/WETENGEL/KSIENSIK,1985).

(2) The generalized expectancies about the game partner represent learned experiences that, on the one hand, relate to the partner's social orientations, and, on the other hand, represent subjective probabilities or even concrete anticipations about the choice behavior of the game partner. Based on the work of KELLEY/STAHELSKI (1970), more recent studies have shown that the orientations expected from the