Coaching Games as Challenging Class of Behavioural Approaches

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ABSTRACT
Coaching is a process that aims to improve performance and focuses on the here and now rather than on the distant past or future. It is based on the helping of a powerful player named the coach to other players named the coachees and the learning of these lasts using some tools to better their lives. In this framework I introduce and study the coaching games as class of behavioural games. I define the utilities of the players related to each the tool of the coaching process and I show that these tools arise the outcomes of the players.

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Introduction

Coaching is a process that focus in the improvement of performances in the present rather than in the past or the future. We can find different models of Coaching but here I consider the coach as a facilitator of learning and not as an expert. There is a big difference between teaching someone and helping them to learn. Actually, the coach is helping the individuals to improve their performances. He helps them to answer to their own problems and unlocks their potential by maximizing their performances. According to P. Battigalli and M. Dufwerber at.el (2019), economists argue that a rich variety of human motivations shape outcomes in important ways.

In this framework I will introduce and define a new class of psychological games introduced by Geanakoplos et al. (1989) and generalized by Battigalli and Dufwenberg (2009).

After defining the coaching games, in section 2 I study the outcomes of players related to each tool of coaching process, in section 3 I study the equilibrium and finally I give some concluding comments.

1. Coaching Games

As we mentioned above, I introduce and study a new class of behavioural games, a finite-multistage games with monetary outcomes, in which players move simultaneously at each stage and observe the outcomes in each time $(t_j)_{j \in 1,..n}$ (We denote T the set of $(t_j)_{j \in 1,..n}$ and decide if they continue or stop the game. We define the game by $(N, (u_i)_{i \in N}, T)$ where N is a finite set of players and $u_i: T \mapsto \mathbb{R}$ the utility of the player i, this utility depends on many factors like satisfaction of the player, its disappointment and the improvement at each time tj . The outcomes of players depend on the help given by the coach to the coachee and the learning of this. We consider that the game proceeds in a finite time $(t_j)_{j \in 1,..n}$, after each a fix period t and in each step of time both coach and coachee evaluate their utility and take a decision: if they got good outcomes they continue with the coaching process, otherwise they stop. We refer to the coach by player 1 and to the coachee by player i. The game is a repeated behaviour game in finite horizon. Both coach and coachees use strategies with complete information. A player k gives prices:

$\alpha^k(tj)$ to its resistance, $\beta^k(t_j)$ to its improvement and a price $\delta^k(t_j)$ to its new potential while the parameters θ^k and χ^k measure the disappointment and the satisfaction of player k. The utility of player k depends on these prices and parameters in each tool of coaching as we will see following.

1.1 Example

Let us take the example of a player of some competitive game he wants to achieve the excellence, to improve one-self, to reach highest standard possible and he wants to win a competition but he has lapses, self-condemnation, concentration and self-esteem problems, so he sees a coach this one makes a first evaluation and they fix performance that they need to do, they meet sometimes periodically and treat in each meeting one aspect of the player problems then both evaluate the outcomes. The coach may use some techniques like NPL (Neuro-Programming-Linguistic) or Neuroscience to help the player to be more conscious about their limited beliefs by asking him questions and making him aware about its emotions and its accurate situation and what he likes to be in a near future helping him to take the right decisions.

2. Coaching skills and the players outcomes

2.1 Beliefs

Beliefs are very important in coaching. Once the coachees has identified their limited beliefs they look for new resources and take decisions to change their lives.

In coaching situations, it is important to recognise that the coach brings with them their own beliefs. One of the key qualities of an effective coach is remaining non-judgemental. Only he is limited to help them to delete their limited beliefs and to create new ones more positive and powerful.

We can find many works that study beliefs in psychological games: Battigalli and Dufwenbergs (2007, 2009, 2019). We consider that both coach and coachee increase their outcomes after a coaching session and that their utilities depend on monetary utility and the satisfaction of each one. By deleting the limited beliefs and adopting new beliefs, players batter their outcomes.

The coach and the coachee meet at time t_j, the coach listens to the coachee and gives him information to delete the limiting beliefs and to adopt new ones. The coachee pays a material price to the coach for the help, this last evaluate its satisfaction and the improvement of his client. Its utility is given by: $u_1(t_j) = v_1(t_j)+(\theta^1-\kappa^1)\beta_i(t_j)$. The coachee maximizes its utility after coaching session and it depends on the material benefit corresponding to new positive beliefs minus the price paid to the coach and the value of its disappointment, it is defined as follows: $u_i(tj) = vi(t_j)+(\theta^i-\kappa^i)\alpha_i(t_j)-v_1(t_j)$

2.2 Self-management

Individuals with high levels of self-management skills methodically achieve their goals.

They are aware of their own strengths and weaknesses, and possess a broad repertoire of context-independent process tools. They are able to create a plan to better their selves. Self-control skills are not studied in psychological games theory. Here player 1 also helps player i giving him the necessary information to manage himself in a positive way to develop self-management practices, a range of strategies by which they can inner-direct, self-regulate, self-monitor and self-evaluate their own activities toward the achievement of goals. By the end of a coaching session at a time tj after each period t player i pays a material price to player 1, this one measure its satisfaction by θ^1 and the improvement of his client by χ^i. We define its utility by: $u_1(t_j) = v_1(t_j)+(\theta^1-\chi^1)\alpha_i(t_j)$. On the other hand, player i gives a price $\alpha_i(t_j)$ to its resistance and a material gain $v_1(t_j)$, its utility is defined as follows: $u_i(tj)=vi(t_j)+(\theta^i-\chi^i)\alpha_i(t_j)-v_1(t_j)$, where $\alpha_i(t_j)$ is the price corresponding to the capacity of the resistance of the control about himself.

2.3 Awareness and attitude

When individuals are aware and with a positive attitude, they make the difference and they are able to achieve their goals. In coaching, coach ask powerful questions to a player making him aware about its limited beliefs and habits and helping him to replace them by positive ones and taking actions by planning its performances.

Here player 1 also helps player i giving him the necessary information to manage himself in a positive way,

he gives the price $\delta_i(t_j)$ to its new potential due to the new attitude and awareness, as we mention above the utility of the coach is given by: $u_1(t_j) = vi(t_j)+(\theta^1-\chi^1)\alpha_i(t_j)-v_1(t_j)$. We define the utility of the coachee by: $u_i(tj) = vi(t_j)+(\theta^i-\chi^i)\delta_i(t_j)-v_1(t_j)$

3. Equilibrium

The coaching game is a traditional finite perfect information game, we assume that this game is a multistage game with perfect information and players move simultaneously at each stage and perfectly observe the past moves when they have to make a choice.

According to Dufwenberg at.al (2019) this class of games has equilibrium.

4. Concluding comments

If we consider the coaching of workers in a firm, we can talk of the coaching as a cooperative game with a powerful player who is the coach player, who possesses some privileged information. On other the hand, we can study this game as a laboratory experiment. Here only we limit to describe the experiment as follows: First step: the coach meets the coachee and each one gives a first evaluation about each other and decide if they continue or leave the therapy. In this step the coach gives some advice to the coachee and this one pays a fixed price and he valuates his satisfaction. If they continue, they meet in a second step and they evaluate their progress and satisfaction. We take the corresponding data (satisfaction, cost...) and we do that each time they meet until the therapy finishes.

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