



## La teoría de juegos en la interacción comunicativa entre servidores públicos y receptores políticos

*The game theory in the communicative interaction between political actors and its receptors*

*Teoria do jogo na interação comunicativa entre funcionários públicos e receptores políticos*

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### Resumen

Las interacciones comunicativas entre servidores públicos y receptores políticos pueden ser consideradas como un ejercicio de doble vía, en el que ambas partes son simultáneamente emisoras y receptoras de información, por lo que cada una de ellas responde y reacciona a la comunicación enviada/recibida. Esto genera una cadena de interacciones entre dos o más agentes involucrados, en la cual, de forma continua, sus participantes responden a los estímulos que reciben a partir de estas nuevas reacciones.

El presente artículo analiza la interacción comunicativa entre servidores públicos y receptores políticos con base en diversas teorías de la negociación; de esta forma, la teoría de juegos es una herramienta de análisis económico que mejora la comprensión de la interacción política comunicativa.

**Palabras clave:** Interacción política comunicativa, servidor público, teoría de juegos, negociación.

**Abstract**

The communicative interaction between political actors and its receptors may be considered as a two-way exercise, in which both agents are simultaneously transmitters and receivers of information, and each one of them responds and reacts to the communication sent/received. This generates a chain of interactions between two or more players or agents, where the players continuously respond to the incentives they receive from the generation of new reactions.

This paper studies the above-mentioned interaction using decision-making theories, in which game theory may improve the understanding of public communicative strategies.

**Key words:** Communicative interaction, political actors, game theory, negotiation.

**Resumo**

As interações comunicativas entre servidores públicos e receptores políticos podem ser consideradas como um exercício bidirecional, no qual ambas as partes são simultaneamente transmissores e receptores de informações, para que cada uma responda e reaja com a comunicação enviada / recebida. Isso gera uma cadeia de interações entre dois ou mais agentes envolvidos, nos quais, continuamente, seus participantes respondem aos estímulos que recebem dessas novas reações.

O presente artigo analisa a interação comunicativa entre servidores públicos e receptores políticos baseados em diversas teorias da negociação; Desta forma, a teoria dos jogos é uma ferramenta de análise econômica que melhora a compreensão da interação política comunicativa.

**Palavras-chave:** interação política comunicativa, servidor público, teoria dos jogos, negociação.

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## Introduction

Mexico is experiencing a historical moment with thirteen structural reforms in different spheres, analyzing simultaneously (economic, political-electoral, educational, finance, energy, labor, financial, criminal procedures, amparo, transparency, accountability, telecommunications and broadcasting). However, their scope or limitations can not be measured solely by their results. It is essential to assess the context in which they are developing and, in a very particular way, to focus attention on public servants, true protagonists of this game, who are the ones who move the threads of these changes.

Fair play (or fair play) is a commonly used expression in sport to refer to loyal and sincere behavior among players; Is characterized by being fraternal and respectful. The concern for fair play has increased in the world, especially for the repetition of questionable sports conduct, not only by the players, but also of leaders, sponsors, referees, directors, advisers, and in general of all involved on the sport. To cite a paradigmatic example, the American Chuck Blazer, one of the most powerful men of the world football in the last decades, was disabled for life by the International Federation of Associated Football (FIFA) when it was confirmed numerous infringements committed consistently and repeatedly While he held several managerial and influential positions in FIFA and in CONCACAF (La Jornada, 2015).

The same concern that exists in international sport exists in the Mexican public administration. Structural reforms are taking place in a context in which interaction and communicative competence<sup>1</sup> (Hymes, 1971) Of those involved are aimed at achieving "change" through negotiation, cooperation, distribution of activities and responsibilities, total care and success of the group, actions against domination, conflict and mistrust. For this reason, communication, negotiation and conflict resolution policies can find the best choice and position in the communicative political interaction between the public servant and the political receivers, in which fair play motivates an adequate cooperation between the parties involved.

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<sup>1</sup> En palabras de D. Hymes, la competencia comunicativa se relaciona con saber "cuándo hablar, cuándo no, de qué hablar, con quién, dónde y en qué forma".



## THEORETICAL FRAMEWORK

Based on Federico Rubli Kaiser's (2006) idea of "communicative interaction" as one of man's own competences, there is a "two-way exercise", in which the two parties involved are receivers and emitters of information Simultaneously. This means that each responds and reacts to the communication received, which in turn prompts new reactions from the initial issuer. Therefore, communicative competence can be seen as a chain of interactions between two or more players or agents involved, in which players continuously respond to the stimuli received from new reactions.

The public servant is immersed in this type of communicative interactions with the political receiver; This is how expectations can be determined on the present evolution and the future trajectory of the institution or dependency of government in which it works. Therefore, the public servant seeks to influence their recipients to guide them toward the convergence of the institution's ultimate goal. If each of the members that make up such receivers has credibility and trust in its director (public servant), convergence will be given in a cooperative way.

Federico Rubli Kaiser (2006) states that employees "cooperate" with their director to achieve the goal, while the director "cooperates" with employees by providing the information they require, in a comprehensive and reliable manner. This environment of credibility and cooperation is a structure of balance: negotiation and conflict resolution, in which "(...) persuasion is a form of communication in which any person who risks entering into relationships with others must participate" ( Reardon, 1983).

In the case of the public servant, personal position depends to a large extent on how the process of change is conceived, its scope and ethical position on the distribution and exercise of power, including on the social and economic conditions of the population. It is for this reason that the decisions that he makes in each concrete issue, especially in the communicative interaction, are reflected in the quality of his constituent organs and in a personal way.



The problems of negotiation have also been present in Economic Theory for more than a century, when they analyzed the possible agreements that could be reached with respect to market power, in which, in a quasi-axiomatic way, a system of preferences was defined For consumers in order to order and represent preferences through a utility function (Reyes, 2017). However, the analysis of negotiation problems transcends the purely economic level and is inserted in the analysis of other areas such as human development, work team integration, leadership, communication, management, organizational performance, conflicts, credibility, Corruption, inefficiency, among others.

The economist and mathematician Frederik Zeuthen (1930) proposed to analyze collective bargaining in the labor market, with a procedure that results in a division of the process in equal parts. He also argued that the theory should be based on agents' attitudes towards risk, that is, at the level where each one is willing to submit to a dispute rather than accept unfavorable terms. Which should have an explicit role in the model.

In 1944, John von Neumann and Oskar Morgenstern published Theory of and Economic Behavior; Their contribution was important indirectly for the Theory of Negotiation because they developed useful tools to this one, such as the concepts of strategy, payment function, play in the form of extensive and in strategic form and characteristic function. In particular, the concept of payment function is a rigorous formulation that allows the formal study of the concept of "risk".

Under these perspectives, the public servant can opt for collective bargaining that is not only done in a linear fashion, but also occurs with other instances and other political recipients that favor their work in the institution and, consequently, in society, and in That the stakeholders (stakeholders) submit to the dispute, accept terms, "risk", but under which rights, rules, options, solutions, achievements, goals, objectives, etc., are defined. Result a fair play.



In 1950 John Forbes Nash defined a basic formal problem of negotiation; This is understood as a set of possible allocations resulting from all viable agreements that can be reached by the trading parties, and an allocation corresponding to the payment each player obtains in case of not reaching an agreement. To find a solution to the problem of negotiation, Nash establishes a series of desirable properties (axioms) that should satisfy such a solution; Later defines it as a rule of allocation of utilities applicable to any problem of negotiation, in which there are four axioms:

- I. Efficiency Axiom: Given an initial assignment, this is a shift towards a new assignment in which at least one's situation improves without making the situation of others worse. Also called "Pareto Improvement".
- II. Axiom of symmetry: states that if the position of the parties in the negotiation is identical (in terms of their risk aversion, available information, etc.) and in the disagreement they are treated in the same way, then in the solution they must receive same.
- III. A scalar invariance axiom: states that any scalar transformation of the players' profits translates into a modification of the solution on the same scale.
- IV. Axiom of independence of irrelevant alternatives: states that the choice of a profit allocation should not depend on allocations that, if feasible, were not chosen.

John Forbes Nash demonstrates that the solution is one that maximizes the product of the utilities of the agents. So, what would be the best choice and position in the communicative political interaction of the public servant?



## DEVELOPMENT

The Theory of Games is a tool of economic analysis that can help to understand situations related to communicative political interaction.

Supported by John Forbes Nash's Theory of Games, public servant negotiations would be given by utility allocations. It is efficient if the axiom of symmetry is used, in which the position of the parties (public servant and receivers) is identical in terms of their aversion to risk, available information, among other factors and in which the disagreement is dealt with the same way.

The idea of Nash's "Efficient Negotiation" is reinforced by the definition of "Strategic Equilibrium" in a game provided by Robert Aumann (Nobel Prize for Economics, 2005), which states: "A strategic balance occurs when actions and All players are optimal, and each player knows how the other will act and how he will react to certain incentives. There is mutual knowledge about it, and each player is rational given the behavior of the other "(Aumann, 2006).

In the game of the public servant, when there is asymmetry in the bargaining power with the receivers, the Nash solution penalizes one of the two parties in the game of communicative political interaction that has risk aversion.<sup>2</sup> Thus, to the extent that a player (whether public servant or receiver) is more adverse to risk, the lesser will be his desire to demand a significant part of the bargaining object, since it entails a positive probability that bargaining Fail In this way, it is very certain that a player is willing to make important concessions in order to avoid disagreement. In the event that a player is risk-averse, the reverse would happen and he would take the risk that the bargain would fail in exchange for demanding a greater profit.

The Prisoner's Dilemma (Poundstone, 1995) is one of the best-known games dealing with negotiations or, rather, a negotiator's dilemma. The dilemma arises from the

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<sup>2</sup> Éste es un concepto usado en economía, finanzas y psicología relacionado con los comportamientos de los consumidores e inversionistas. La aversión al riesgo es la preferencia de una persona a aceptar una oferta con un cierto grado de riesgo antes que otra con más rentabilidad pero con un mayor nivel de riesgo.



problem of two thieves who are awaiting trial for a crime they committed; The problem becomes ethical when every thief has to decide whether to trust the second thief, who is his partner, and has to decide (dilemma) whether or not to betray his partner. The combinations and actions that arise from this dilemma are: 1. Trust your partner and do not betray him; 2. Trust your partner and betray him; 3. He does not trust his partner and betrays him; Or 4. He does not trust his partner and does not betray him.

If the public servant and the receiver opt for the first or third behavior, they are perceived as being ethically consistent, whereas in the second behavior they would be opportunistic and openly immoral; The latter behavior would be purely altruistic. In parallel, the protagonists of the game in the communicative political interaction could present a series of combinations of decisions and actions.

In this way the game of the "Prisoner's Dilemma" applies in real life, therefore, there may be the cooperation of a communicative political interaction, in which there can be four approaches to negotiation, which would mean:

- a. When the public servant wins: the political receivers get agreements above their minimum objectives.
- b. When the public servant loses: the political receivers get agreements below their minimum objectives.
- c. When the political receiver wins: the public server gets agreements above minimum goals.
- d. How much the political receiver loses: the public servant obtains agreements below the minimum objectives.





In the daily negotiation situations of the public administration, persons or players (public servants / political receivers) pursuing their own interests may cooperate with the other party when they realize that they may meet again, because each of the players would be Better if both cooperate, otherwise agreements are unlikely because each party has an incentive to get out of the case in order to maximize their own profits.

Simultaneously, public servants must be able to see the facts in perspective and be as fair in accordance with the circumstances, that is, to see the other party as a partner and not as an opponent in order to work together, because the Negotiators have the opportunity to create a solution that will be beneficial to both parties.

## **CONCLUSIONS**

The communicative interaction between public server and political receivers is a process that can be analyzed in different ways. In the case of this article, it is inferred that in each exercise of communicative interaction there is also a prisoner's dilemma, in which negotiation capacity is of vital importance for conflict resolution.

Although the reality is more complex and dynamic, the previous exercise allows us to conclude that the cooperation between the public servant and the political receivers generates a negotiation superior to the individual action of each of them. Likewise, the benefit is optimal provided that both parties are honest and really cooperate. Otherwise, you will get a negotiation for unstable purposes.



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