

GAME THEORY APPLIED TO CUSTODY CONFLICTS

A TEORIA DOS JOGOS APLICADA A CONFLITOS DE GUARDA

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ABSTRACT: This paper deals with the use of game theory in Family Law, especially in custody cases. It presents Game Theory and two of its modalities – zero-sum game and non-zero-sum game – and its uses in disputes concerning which parent shall be awarded custody. The intent is to draw a parallel between the attitude of parents disputing their child's custody and game theory, as well as to present how to address these matters in order to achieve the intended outcome in accordance with the rule applicable in Brazilian Law, which is joint custody.

KEY-WORDS: Game Theory. Brazilian Family Law. Child Custody. Joint Custody. Zero-sum game. Non-zero-sum game.

RESUMO: Este artigo aborda a teoria dos jogos aplicada ao direito de família, especialmente no tema da guarda. Apresenta-se as modalidades de jogos – jogos com soma zero e jogos com soma diferente de zero –, e os reflexos dessas modalidades nos conflitos sobre com qual genitor deverá ser fixada a guarda. Pretende-se buscar um paralelo entre a atuação dos pais que estão em conflito sobre a guarda de seus filhos com a teoria dos jogos, e apresentar qual a forma de abordagem para se obter o resultado pretendido, que é o compartilhamento da guarda, atual regra legal no direito brasileiro.

PALAVRAS-CHAVE: Teoria dos Jogos. Direito de família Brasileiro. Guarda dos filhos. Guarda compartilhada. Jogo soma zero. Jogo soma diferente de zero.

Introduction

Game theory is understood as a decision-making technique, and two of its modalities will be discussed in this article, one where players claim a payoff in exclusion of the other player (zero sum game), using the most diverse strategies for this outcome, and another where players cooperate in the search for a payoff in common (non-zero sum game), a situation in which dialogue between the participants is fundamental.

In a second moment of this work, the conflict of custody of the children is addressed, as what interests should prevail in this dispute, considering that the Brazilian Civil Code

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establishes shared custody as a legal rule, even when there is no agreement between the parents.

In this regard, ways of transforming the conflict in a beneficial form of custody will be approached. This will be made aiming a situation of agreement between the parents and taking into consideration that the most important issue in these cases is the child's interest.

To that end, game theory will be applied in custody conflicts, correlating zero-sum games and non-zero sums with the evolution of the conciliation techniques that are used by the third party – a mediator or the Family Law judge – to deal with the conflict between the parties.

I. Development

I.1. Game Theory

Game Theory is a decision-making technique created by John Von Neumann, in 1928, based on the "minimax" basic theorem and on the publication of his work entitled "Theory of Games and Economic Behavior", in 1944 (NEUMANN and MORGENSTERN, 2007, p. 616).

According to Morton D. Davis, game theory establishes how one must make decisions and how to effectively make decisions (DAVIS 1977, p. 96). He claims that, according to game theory, one of the players plays according to his own wishes, while trying to find out what the other player is doing, while the other player also plays according to his wishes, trying to find out what the first player is thinking. Thus, the player establishes his strategy considering all possible circumstances:

In a game there are others present who are making decisions in accordance with their own wishes, and they must be considered. While you are trying to figure out what they are doing, they will be trying to figure out what you are doing.

Theory of games is a theory of decision making. It considers how one should make decisions and, to a lesser extent, how one does make them.

A strategy in game theory is a complete plan of action that describes what a player will do under all possible circumstances.

Márcio Pugliesi (PUGLIESI, 2009, p.185) also asserts that the performance of the subject must take into account several circumstances, according to the rules of the game that he proposes to play:

O sujeito age, a partir das regras do jogo e de seu conhecimento das circunstâncias, corrige sua ação e busca conferir os efeitos da atuação sobre o sistema (subconjunto do mundo, entendido como sua atmosfera semântica e a respectiva poluição) e o meio, a totalidade das aspeccões possíveis a ele, e então, por assim dizer, retroage, isto é, realimenta seu próprio cabedal de informações e refaz, quando possível, a decisão preliminarmente assumida,

recompondo sua teoria.²

In game theory, it is possible that players have diametrically opposed interests, in which case the game is known as a zero-sum game, or they may have similar interests, when the game will be considered a non-zero sum game.

According to Nash, the equilibrium point in two-person games in the zero-sum mode is called a solution, which is related to equilibrium strategies and advantages to be obtained (NASH, 1949, p. 48). Thus, the equilibrium point between stakeholders occurs when their expectations are equivalent: “In the two-person zero-sum case the "main theorem" and the existence of, an equilibrium point are equivalent. In this case any two equilibrium points lead to the-same expectations for the players, but this need not occur in general”.

Davis argues that there are games that can be both cooperative and competitive, generally more complex games, which are more interesting, and more often found in everyday life than purely cooperative games, notably because in many situations the parties only seem to have no common interests, but, actually, they have similar interests. Thus, the more cooperative the game, the more the interests of the players coincide and the greater is the need for proficiency in communication (DAVIS, 1997, p. 968). In the cases where communication between players is needed, the mentioned author maintains that communication ceases to be effective when there is any misunderstanding in the dialogue.

In addition, during non-zero-sum games, players may win if they convince the opponent that they have certain attitudes or abilities, regardless of whether they have such values or not, in which case the player's eagerness to force the agreement can be interpreted as weakness, decreasing the chances of agreement (DAVIS, 1997, p. 1370).

By applying the theory of games in law, according to Gregorio Robles, we notice that the controversies presented by the lawyers in the process take into account the probabilities of success, considering the role of the judge and the situations involving the party himself and the opponent (ROBLES, 2011, p. 14):

Um processo diante de um juiz é enfocado por cada parte com uma estratégia diferente com o objetivo de levar a decisão ao terreno do benefício próprio ou da parte representada. Um, advogado sabe que tem que preparar, para a defesa de seu cliente, uma estratégia, basicamente argumentativa, que contradiga a elaborada pela parte oposta, de tal modo que as probabilidades de êxito, pelo menos de êxito relativo, sejam maiores que as de fracasso. Na

² Freely translated: The subject acts, from the rules of the game and his knowledge of the circumstances, corrects his action and seeks to check the action's effects on the system (subset of the world, understood as its semantic atmosphere and its pollution) and the environment, all possible aspects to it, and then, so to speak, retroact, that is, he feeds back his own material of information and remakes, when possible, the preliminary decision, resetting his theory.

estratégia o papel a mais importante é a informação correta, tanto em relação à própria situação e capacidade, quanto às do oponente.³

Robles (ROBLES, 2011, p. 14) maintains that the goal of success is a necessary element of the game, but emphasizes the possibility of games in which there is no such purpose or, that in certain games, some participants have interest in winning, while others do not, citing the following example: "*when parents play with their children and let them win.*" Thus, he states that each of the parties has a purpose, a purpose for the process that they present for judgment:

No Direito o fim representa igualmente um elemento subjetivo na mente de seus criadores. Estes criam regras jurídicas com o objetivo de alcançar determinadas metas. Mas dado que a variedade destas é múltipla, não reduzível a um único esquema ideológico, carece de sentido afirmar a necessidade de um determinado fim como requisito imprescindível do Direito. O fim é algo exterior ao Direito, o qual é pensado na mente de seus criadores como um meio para conseguir aquele.⁴

Neumann and Morgenstern (NEUMANN and MORGENSTERN, 2007, p. 616) argue that when two buyers are interested in the same object, it is necessary to know what utility the object has for the other party, that is, it is necessary to obtain the complete knowledge of the objects, of the psychological conditions of each, because only then will the conflict be resolved. They also point out that the bargaining power of each party is directly linked to their capacity for discernment.

According to Baird, Gertner and Picker (BAIRD, GERTNER and PICKER, 2003), it is necessary to take into account Baye's rule, which establishes a rational way of updating the beliefs of the other players, since the solution to a game must take these beliefs into account as a player's ability, and since the other player's beliefs and strategies are usually constant:

The word 'Bayesian' in the name incorporates the idea that uninformed players put probabilities on different events and then update them using Bayes's rule when other players take actions that convey information. (In probability theory, Baye rule's provides a means to capture formally that rational people should update their beliefs in the wake of new information). The word 'perfect' reflects the idea that beliefs and actions have to be consistent with each other.

³ Freely translated: In a process before a judge each party focuses on a different strategy in order to bring the decision to be self-beneficial or beneficial to the part represented. A lawyer knows that he has to prepare, for the defense of his client, a basically argumentative strategy that contradicts the one elaborated by the opposing party, so that the odds of success, at least of relative success, are greater than those of failure. In strategy the most important role is having correct information about your situation and capacity, as well as the opponent's.

⁴ Freely translated: In Law the end also represents a subjective element in the minds of its creators. These create legal rules in order to achieve certain goals. But since the variety of these is manifold, not reducible to a single ideological scheme, it makes no sense to affirm the necessity of a particular end as an essential requisite of law. The end is something outside the Law, which is thought in the minds of its creators as a means to achieve that.

A player who is uncertain about what another player has done nevertheless has beliefs, based, perhaps, on previous experience. In addition, their beliefs are updated in the light of new information. A solution to a game should take this beliefs and a player's ability to update them into account. As stated, the beliefs and the strategies of the players should be consistent with each other. A proposed solution to a game is suspect if it depends on one of the players having beliefs that are inconsistent with actions that players take in equilibrium, or if it requires players to take actions that are inconsistent with their beliefs. We can test whether a proposed equilibrium is a perfect Bayesian equilibrium in much the same way we tested for a Nash equilibrium. We ask whether, in the proposed equilibrium, a player's actions are a best response, given that player's beliefs and actions and beliefs of the other players.

Thus, considering the theory of games, it is possible to sustain there is a need to know the interests, beliefs and abilities of each player, whether their interests are a common one or are opposites. There will be a balance in the game when the players consider the strategies that can be used and the advantages that can be obtained before they form their expectations.

Games can be cooperative or competitive. Cooperation takes place when the players' interest is a common one and requires them to have a greater ability to communicate, considering that misunderstandings can become an obstacle for the effectiveness of the dialogue. Thus, each player must convince the other about their own abilities, about the utility of the object for themselves. However, if they exaggerate in this attempt, they will be showing weakness and making the chances of reaching an agreement smaller.

When Game Theory is applied to law, the players are the parties and the role of the judge or mediator is to obtain accurate information of all the argumentative effort presented. In legal proceedings, success is not a purpose always present in both parties, and the circumstances of each case must be considered, especially when the goal of the contenders is a common one.

1.2. Application in Family law

Game theory can be applied in family law, especially in custody conflicts, due to the huge amount of similarities between the characteristics of each case.

In custody disputes, parents usually discuss in court about their own desires and needs to have more contact with their children. Each of them presents, under their personal view, their psychological aptitude to provide care to their progeny (utility of the object). Parents interests are similar because their expectations are equivalent, but they are not always interested in winning the dispute. This can be solved by knowing the abilities of each to care

for and properly educate their children and as long as the a goal is the best interest of the minor involved.

With this approach, when the parties are willing to negotiate the terms of the agreement, the cost of the dispute is lower. It is more common for the parties to trade when the risk of an unfavorable judgment is bigger. A balance of expectations usually occurs when neither party shows optimism as to the outcome of the trial (COOTER, MARKS and MNOOKIN, 1982, p. 47).

In the model proposed by Cooter, Marks, and Mookookin (COOTER, MARKS, and MOOKINK 1982, p. 47), the bargaining approach is the barrier to out-of-court settlement, rather than the cost of communication or process as they believe that it is possible for the parties' agreements, even at a small cost in the judicial process. They understand that if the parties' expectations are more rational than optimistic, judgments will occur with less risk, and if the parties' expectations are more optimistic, judgments will occur when the loser has to pay a fee to the winner.

Zeleznikow and Bellucci (ZELEZNIKOW and BELLUCCI, 2003, p. 21) argue that in family conflicts two outcomes are possible, extrajudicial agreement or judgment, the latter representing the frustration of the agreement. They also present the concept of "negotiated decision" by an agent that has effective negotiation abilities:

Some recent work on negotiation concerns the area of discourse and argumentation theory defines six main types of dialogues, of which negotiation is one: persuasion dialogue, negotiation, inquiry, deliberation, information seeking and eristic dialogue. Whilst we are aware of the importance of the discourse and deliberations systems (especially for the domains of e-democracy and e-government), our aim is to provide negotiation decision support rather than model of negotiation discourse. Of significance to our research is to work of. They develop an automated agent that can negotiate effectively with humans. The model used in constructing the agent based on the formal analyses of their scenario using game theoretic methods and heuristics of bargaining discuss trade-offs made by agent during automated negotiations.

These authors, writing about Australian experiences, apply the theory of games to conflicts related to family law, saying that the method of mediation should be used to seek agreement between the parties, in order to find a fair and impartial solution:

"Family_Winner" extends the game-theoretic principles developed by through the use of trade-off rules and maps to proffer advice upon structuring a mediation and reaching an equitable outcome. Because we hope that the techniques we have developed in Australian Family Law can be generalized to other domains, we conducted two evaluations of the Family_Winner system:

Having family law domain experts analyze the operation of Family_Winner;

Using the Family_Winner system to advise upon non family law cases and comparing the outcome derived by Family_Winner to the eventual negotiated outcome.

They also affirm that in the demands that refer to family rights, there are no winners or losers, since the parties must continue in communication even after the conclusion of the litigious process:

Family law varies from other legal domains in that general: There are no winners or losers – save for exceptional circumstances, following a divorce both portion of the property and have defined access to any children. Parties to a family law case often need to communicate after the litigation has concluded. Hence the Family Court of Australia encourage negotiation rather than litigation. The overriding principle in Australian Family Law is the consideration of the paramount interest of the children.

They maintain that the accomplishment of success (or the not accomplishment of it) in the agreement between the parties depends of the reduction of each party's goals to zero. Thus, for family law, it would be necessary to apply both game theory and heuristics, so that the payoffs desired by each party are considered as information and negotiation rules:

The agreement and disagreement are only in relation to the goals and hence do not resolve the negotiation. In order to reach a negotiation settlement, it is essential to reduce the difference between the goals to nil.(...)
Family_Winner uses both game theory and heuristics. It's supports the process of negotiation by introducing importance values to indicate the degree to which each party desires to be awarded the issue being considered. The system uses this information to form trade-off rules.

If the agreement is not possible with this method, they propose that it be decomposed into different levels of problems to be dealt with, starting with the smallest of them, that is, from the least controversial, as a way of finding individual solutions for each one of them. They point to an intuitive way, in which one must then pass to those of greater controversy and greater litigiousness.

These authors also affirm that the parties have certain common concepts of justice, which in Family Law is the concept that the supreme interests are the interests of the children.

In sum, by taking the theory of games to family law, one can perceive the existence of a fantastic tool, which is able to allow the mediator or the judge to perceive in the conduct of each of the parties their underlying interests, in order search for the balance in the expectations of the parties in relation to the intended object - custody of the children -, making it possible to obtain a solution that permeates the beliefs, abilities, psychological perks and limits of communication of the parents, in order to achieve the primary objective, which is to promote the best interest of the minor involved.

Considering the necessary continuity of the parents' relationship even after a possible separation, it is interesting to seek a negotiated and peaceful decision to obtain a fair and impartial solution to the case, since there are no winners or losers in this type of demand.

Even in the event of difficulties in reaching an agreement, Game Theory presents a solution, through the unfolding of the problems presented, starting the negotiation from the least contentious problem until the most controversial one, increasing the probability of a deal.

1.3. Child custody conflicts

According to article 1,583, first paragraph, of the Brazilian Civil Code (BRASIL, Law 10,406 of January 10, 2002), the custody of a minor child may be unilateral, when attributed to one of the parents or to someone who replaces him or her; or shared, when there is joint responsibility for the exercise of rights and duties concerning family power by the father and the mother who do not live under the same roof.

The reason for this is that the Article 1632 of the Civil Code (BRAZIL, Law 10,406 of January 10, 2002) establishes that the relations between parents and children must not be altered after the separation of the couple. According to Maria Berenice Dias (DIAS, 2017, l. 68%), "the end of the conjugal relation of the parents does not relieve any of them from the burdens of family power". The author further states:

The institution of shared custody as compulsory, when both parents are able to exercise it (CC 1.584 § 2), imposes the joint responsibility and the exercise of the contenders to family power (CC 1.583 § 1), being divided, in a balanced way, the time of convivality with the children (CC 1.583 § 2).

To the legislative amendment concerning the Civil Code (BRASIL, Law 10,406 of January 10, 2002) through Law 13.058 of December 22, 2014, shared custody was erected to the level of a legal rule, and should be applied even in the lack of agreement between parents and should not be applied by the judge when one of the parents informs that they do not want the custody of the child or when the parent is not able to exercise it.

On the issue of child custody, Maria Cancian and Daniel R. Meyer (CANCIAN and MEYER, 1998, p. 148) argue that most of the agreements occur extra-judicially "*in the shadow of the law*": Quando os pais se divorciam, várias decisões legais formais devem ser feitas, inclusive onde a criança deve viver (custódia física), quem deve tomar decisões importantes sobre a criança (custódia legal), como os bens serão divididos e se haverá transferências financeiras (apoio à criança ou pensão alimentícia). Essas decisões geralmente são inicialmente negociadas pelos pais, que negociam "a sombra da lei"

(Mnookin e Kornhauser, 1979). Em um divórcio, um tribunal então aprova o acordo dos pais ou ordena outro acordo.⁵

Robert H. Mnookin and Lewis Kornhauser (MNOOKIN and KORNHAUSER, 1979, p. 963) argue that one of the issues that must be solved by the parents in marital separation is the question of custody, that is, how children will spend time, who will be responsible for them, the shared guard being one of the options:

The remaining element of the bargain concerns the custodial duties and rights of the parents. By varying the amount of time that the child spends with each parent, and by assigning particular child-rearing tasks to one parent or the other, a divorce settlement may divide prerogatives in many different ways. At the extreme, one parent may be entirely responsible for the child all the time, with the other spouse spending no time with the child. Or, divorcing parents may agree to share childrearing responsibilities equally after divorce through joint custody. For example, the child may live with each parent one-half of the time, with the parents together deciding where and how the child should be educated, who the pediatrician should be, etc. Between these extremes, many other alternatives are often possible.

The difficulty in the conflicts involving the custody of minor children is the use of the children as if they were the payoff of the dispute - or the reward of the game - when all the efforts are made by belligerent parents to achieve the longest time with the son to the detriment of the other parental couple.

Game theory is applicable to custody conflicts in which parents often position themselves in the judicial process as in the zero-sum game, where both seek diametrically opposed results, that is, for the exclusion of the other parent from the child's life. In this case, each one of the parents believes that the exclusion of the other parent - of the one who is considered to be the cause of the separation (as if it were possible to attribute any separation to only one person) - of the children's lives will be the solution to end the conflict that gave rise to the separation itself, and which would lead to peace and family harmony, without taking into account the greater interest of the child and the adolescent, their physical and psychological integrity.

This frequently occurs due to the breakdown of trust, which affects the bond that previously existed between the couple. In this case, the children tends to be used as objects - or payoffs - by the parents, especially when they perceive that the children show any kind of

⁵ Freely translated: When parents divorce, several formal legal decisions must be made, including where the child is to live (physical custody), who is to make major decisions about the child (legal custody), how assets will be divided, and whether there will be ongoing financial transfers (child support or alimony). These decisions are often initially negotiated by the parents, who bargain in "the shadow of the law" (Mnookin and Kornhauser 1979). In a divorce, a court then either approves the parents' arrangement or orders another arrangement.

loyalty to the other parent.

The practice of holding family court hearings in the Federal District allows us to gauge that the greater the heartache caused by the separation of the former couple, the greater the litigation in the custody dispute. The heartache can be related to betrayal, domestic violence, the end of love, to the conflicts the couple has/had, in other words, they are always very sensitive issues that have caused the end of the conjugal relationship or of companionship.

At this point, it is very common for parents to begin to harm their children even more by speaking ill of the other parent to their child, disqualifying him/her as a parent and as a person, many times making it necessary for the judge to apply the rules of the Parental Alienation Law (BRASIL, Law 12,318 of August 2010).

However, it is necessary to seek ways of reducing litigation between parents, since the relationship they have does not end with the end of their marriage or of their stable union, but it protracts in time, while the children they have in common are alive.

Thus, the technique presented by game theory can contribute to the mediation of custody conflicts, considering the rule of non-zero-sum games, that is, when the parties perceive that the interest they seek is not diametrically opposed, but a common one: the happiness of the child.

So much so that the theory of games is the object of mandatory study in the training of mediators that will act in the Brazilian Justice, according to the express determination contained in Resolution 125 of the National Council of Justice (BRAZIL, Resolution 125 of November 29, 2010), *verbis*:

Teoria da Comunicação/Teoria dos Jogos Axiomas da comunicação. Comunicação verbal e não verbal. Escuta ativa. Comunicação nas pautas de interação e no estudo do interrelacionamento humano: aspectos sociológicos e aspectos psicológicos. Premissas conceituais da autocomposição.⁶

When the parental couple can perceive that the interest of the child - who is a unique being, who deserves respect, attention, care, protection, in the "peculiar condition of a developing person" (as described in BRAZIL, Child and Adolescent Statute, Law 8.069 of July 13, 1990) - is greater than the intention to reciprocate the evil suffered by the other parental pair, that is considered to be the cause of that extreme pain and sorrow, the focus of the dispute changes from the parents towards the children.

In this way, the payoff of the dispute ceases to be to have the child to himself/herself

⁶ Freely translated: Theory of Communication / Theory of Games Axioms of communication. Verbal and non-verbal communication. Active listening. Communication in the interaction patterns and the study of human interrelationship: sociological aspects and psychological aspects. Conceptual assumptions of self-composition.

to the exclusion of the other parental pair (as if the child was an objector reward), and happens to be the happiness of the child, being that the child has the need of contact with both parents, for the strengthening of bonds between them, for the construction of healthy relations of the son or daughter with each one of her/his parents.

After all, the son/daughter is the synthesis of what he/she learned to be in accordance with the teachings passed by the individualities of his/her father and mother, and this contact with two worlds, with two truths, with the system of each parent, is fundamental so that he or she can obtain as a result the capacity of creating his/her own truth, from what he/she obtained from each of his/her parents.

Realizing that "holding the child's custody is not winning a trophy", as Verônica Aparecida da Motta Cezar-Ferreira said (CEZAR-FERREIRA, 2013), and since the true payoff of the game is the child's happiness, thus, players no longer act in an opposing way, because they can only succeed in the conflict when they contribute to the desired result together.

For this, parents need to know the strategies related to the case through the explanations of the judge or mediator on the concept of unilateral custody, shared custody, which the law establishes as a rule and its exceptions. The rights and obligations of each of the litigants must also be presented.

Robert M. Mnookin and Lewis Kornhauser (MNOOKIN and KORNHAUSER, 1979, p. 971) argue that effective knowledge of the criteria of judgment is not known to the parties, but they may know the real possibilities of obtaining judicial custody:

The reality of custody litigation is more complicated, and the knowledge of the parties much less complete, than in our theory. The parties in the example know the standard for decision and the odds of winning custody in court. But in real situations, the exact odds of various possible outcomes are not known by the parties; often they do not even know what information or criteria the judge will use in deciding.

By establishing a timeline of the judicial custody process, even when the parties enter the dispute with a substrate of belligerence and imbued with the intention of obtaining the payoff at any price, with the explanation of the rules on guard and of the rights of children and adolescents, it is possible to transform the reality of zero-sum game into non-zero-sum game.

In this way, belligerency is reduced and the game becomes cooperative and the risks of the judicial process will not produce very different results from those that could be agreed upon.

If the parties continue not showing an interest in reaching an agreement on all issues, the mediator or judge can use conflict resolution methods, starting from the least controversial issue to the most controversial, as Zeleznikow and Bellucci propose

(ZELEZNIKOW and BELLUCCI, 2003, p. 21).

Verônica Aparecida da Motta Cezar-Ferreira (CEZAR-FERREIRA, 2013, p. 107) argues that parents need to balance the issues of the continuity of the child's relationship with their genitors in order to protect their children from established conflicts:

Nesse sentido, em pesquisas na interface psicojurídica, encontramos na literatura psicológica produções importantes, pioneiras à época, sobre acordo judicial, como a de Edward Teyber que, em 1995, já afirmava: Os pais precisam equilibrar dois requisitos essenciais em todas as determinações de acordos de guarda/acesso. Em primeiro lugar, uma das premissas precisa ser a continuidade da relação da criança com os dois genitores. Em segundo lugar, é preciso conduzir as negociações sobre os acordos de acesso (visitas) de forma a proteger os filhos dos conflitos parentais. (TEYBER. 1995, p.117)⁷.

The author (CEZAR-FERREIRA, 2013, p. 107) also says that several scholars believe that unilateral custody is responsible for the removal of the offspring of the offending parent, increasing distress and deteriorating relationships. Whereas prioritizing the construction of positive images of the other parent collaborates for emotional balance of the children.

O que importa para a criança é ter pais que a ajudem a construir uma imagem edificante do outro. A guarda vivida de maneira amorosa, complementada pela execução serena do regime de visitas, é que proporciona equilíbrio emocional aos filhos.

Nem um pai é melhor pai, nem uma mãe é melhor mãe, por deter a guarda do filho. Essa, como se frisou, não confere privilégios nem define, em princípio, que um dos pais seja superior ao outro no amor aos filhos. Numa guarda adequadamente complementada pela visitação, a criança poderá sentir que ambas as casas são "seu lar".⁸

Information on shared custody should enable the parties to perceive this to be the custodial mode that most closely resembles the joint custody they held when they were still married or living in a stable union, and that they in fact remain parents and guardians and have same rights and obligations to the children even after the separation (CEZAR-FERREIRA, 2013, p. 92).

By shifting the focus of the interests of the disputing parents to the interests of the

⁷ Freely translated: In this sense, in psycho-juridical interface research, we find in the psychological literature important productions, pioneering at the time, about judicial agreement, such as that of Edward Teyber, who in 1995 already stated: Parents need to balance two essential requirements in all custody / access agreement determinations. First, one of the premises must be the continuity of the child's relationship with the two parents. Secondly, there is a need to conduct negotiations on access agreements (visits) in order to protect children from parental conflicts. (TEYBER. 1995, p.117). (freely translated)

⁸ Freely translated: What matters to the child is having parents who help build an uplifting image of the other. Guarded lovingly, complemented by the serene execution of the visitation regime, it provides emotional balance to the children. Neither a father is a better father, nor a mother is a better mother, because he has custody of his son. This, as emphasized, does not confer privileges nor define, in principle, that one parent is superior to the other in their love of their children. In a guard adequately complemented by visitation, the child may feel that both houses are "their home".

contested child, the parents realize that they can act together, even if there are grievances in the terminated relationship, because what is important is the fruit of that and once they understand that their relationship was fruitful nobly when bringing to the world a new being, a child, who will need the support of his father and the mother together.

Conclusion

The Game Theory has extensive usage in law, especially to studies related to family law. However, its application is restricted to issues related to the sharing of goods, which can be related to the custody of children as trump to be used for those who wish to benefit in the division of assets.

In this article we present another use of Game Theory in cases of child custody, moving away from the idea of a payoff being a better division of assets, that is, of the sole custody of the child being the best solution for custody cases.

From this point of view, game theory can be extremely useful for mediating family conflicts, since it provides the mediator or the family judge an instrument to understand the strategies used by the parties in the custody process.

Considering that Game Theory admits several modalities of competition and bargaining, this article dealt only with the modalities of games of zero-sum and non-zero sum – propositions that often unfold in the lawsuits of cases of guard – for the purpose of understanding the parameters that can be used to make an agreement between the parties feasible.

In zero-sum games, the payoff is the custody of the child by one parent with the loss of his or her contact with the other parental pair. However, there is a need to understand the conflicts concerning child custody based on the best interests of the child and adolescent involved and, from this assumption, game theory would contribute to family law through the application of non-zero-sum games, with the cooperation of the parties to the peaceful settlement of the conflict.

The techniques created by game theory involve the knowledge of the opponent's strategy, which usually is to obtain the custody of the child exclusively for himself; the rules of the game, which are the legal rules related to guardianship; clarifications about shared custody; and the demonstration of the risks of the demand for parents. By knowing this, an effective cooperation between the parents becomes possible since they both seek the best solution for

the child, which is the shared custody, where both parents gain in time of coexistence and in bonding with their children, in the participation in the formation of his/her personality, as closely as possible to what existed before the marriage or the stable union was broken.

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