

THE POSSIBILITY OF GROUNDING  
CONTEMPORARY SOCIAL CONTRACT THEORY BY THEORY OF GAMES:  
THE CASES OF RAWLS, GAUTHIER AND BUCHANAN

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## **ABSTRACT**

### **THE POSSIBILITY OF GROUNDING CONTEMPORARY SOCIAL CONTRACT THEORY BY THEORY OF GAMES: THE CASES OF RAWLS, GAUTHIER AND BUCHANAN**

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This thesis analyzes the concepts of social cooperation of two traditions, the social contract theory and the theory of games. Three main characteristics of social cooperation understanding of the game theory will be offered, and it will be compared with the understanding of the social cooperation of the social contract theory. The Classical Social Contract Theory does not offer any calculation of the utility. On the other side, The Contemporary Social Contract Theory provides the measurement of utility. This study has divided contemporary social contract theory as a contracting process, and a social cooperation. The Contracting process is constituted by internal constraints and in this part, individuals are ready to abandon their share to gain more in the long term. Secondly, social cooperation understanding of the contemporary social contract theory does not offer a bargaining game in which one of the parties has potential to lose share on the outcome. The Contemporary Social Contract Theory suggests that every individual should increase their share compared to the absence of cooperation, and they offer the best payoffs that is higher than the defector's share in the prisoner's dilemma. It is contrary to the social cooperation understanding of the theory of games.

Keywords: Social Cooperation, Game Theory, Rawls, Gauthier, Buchanan

## ÖZ

### GÜNÜMÜZ TOPLUMSAL SÖZLEŞME GELENEĞİNİ OYUN TEORİSİ ÜZERİNDEN TEMELLENDİRME OLASILIĞI RAWLS, GAUTHIER AND BUCHANAN ÖRNEKLERİ

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Bu çalışma, iki geleneğin, toplumsal sözleşme ve oyun teorisi, toplumsal işbirliği kavramlarını incelemiştir. Oyun teorisinin toplumsal işbirliğine anlayışına yönelik üç ana özellik sunulacak ve toplumsal sözleşme teorisinin toplumsal işbirliği anlayışı ile karşılaştırılacaktır. Klasik Toplumsal Sözleşme Teorisi faydanın hesaplanmasını sunmamaktadır. Öte yandan, Günümüz Toplumsal Sözleşme Teorisi faydanın ölçülmesini sunmaktadır. Bu çalışma günümüz toplumsal sözleşme geleneğini, sözleşme süreci ve toplumsal işbirliği olarak iki farklı alana bölmektedir. Sözleşme süreci içsel sınırlılıklarla kurulmuştur ve burada bireyler uzun dönemde daha fazla kazanabilmek için paylarından feragat etmektedirler. İkinci olarak, günümüz toplumsal sözleşme teorisinin toplumsal işbirliği anlayışı bir tarafın olası kaybının olduğu pazarlık modelinin sunmamaktadır. Günümüz toplumsal sözleşme teorisi işbirliğine girilmediği duruma göre herkesin payını arttırmasını öne sürmektedir ve mahkumun ikilemindeki cayan kişinin payından da daha fazlasını sunmaktadırlar. Bu durum oyun teorisinin toplumsal işbirliği anlayışına uymamaktadır.

Anahtar Kelimeler: Toplumsal İşbirliği, Oyun Teorisi, Rawls, Gauthier, Buchanan

To My Parents

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## TABLE OF CONTENTS

PLAGIARISM.....	iii
ABSTRACT .....	iv
ÖZ.....	v
DEDICATION.....	vi
ACKNOWLEDGMENTS.....	vii
TABLE OF CONTENTS .....	viii
LIST OF TABLES .....	x
LIST OF FIGURES .....	xi
CHAPTER	
1. INTRODUCTION .....	1
2. THEORY OF GAMES AND SOCIAL CONTRACT .....	8
2.1 Theory of Games.....	8
2.2 Moral Theory and Theory of Games .....	12
2.3 Evolutionary Game Theory and Social Contract.....	18
3. MEASURABILITY OF THE SOCIAL CONTRACT TRADITION .....	25
3.1 Background of the Social Contract.....	25
3.2 The Social Contract Theory.....	29
3.2.1. Hobbes .....	29
3.2.2. Locke .....	31
3.2.3. Rousseau.....	32
3.3 Social Contract Theory in Decline and Measurability .....	35
4. CONTEMPORARY SOCIAL CONTRACT THEORY.....	40
4.1. Rawls .....	40
4.1.1. Subject of Justice .....	40
4.1.2. Justification of the Principles of Justice and Defining the Least Advantaged Group.....	44
4.1.3. Rawlsian Critics of Utilitarianism .....	49



4.2. Gauthier .....	56
4.2.1. Constrained Maximizers.....	56
4.2.2. Non-arbitrary Society .....	58
4.3. Buchanan .....	60
4.3.1. Constitutional Contract.....	60
4.3.2. Post-constitutional Contract .....	63
4.4. Two Different Conceptions of the Social Cooperation .....	66
CONCLUSION .....	69
REFERENCES .....	78
APPENDICES	
A. TURKISH SUMMARY .....	85
B. TEZ FOTOKOPİSİ İZİN FORMU .....	97

## LIST OF TABLES

### TABLES

Table 1 Prisoner's Dilemma.....	10
Table 2 Interpersonal Comparison of Luke and Matthew's Utility .....	13
Table 3 Possible Distributions Based on Difference Principle .....	53
Table 4 Two-by-Two Matrix for the Two-Person Example.....	62



## LIST OF FIGURES

### FIGURES

Figure 1 Bargaining Area between Luke and Matthew .....	15
Figure 2 Pareto Improvement and Pareto Efficiency .....	16
Figure 3 Braithwaite's Solution .....	17
Figure 4 Comparison of Difference Principle and Other Possible Distributions in the Original Position .....	51
Figure 5 Indirect Contract Under Less-Than-Unanimity Decision Rules .....	65

## CHAPTER I

### INTRODUCTION

Game theory has had an academic importance for a long time. Von Neumann and Morgenstern (2004) imported this branch of study into economics from mathematics. John Nash was awarded the Nobel Prize in 1994 for developing Nash equilibrium. Also, John Harsanyi and Thomas C. Schelling are just two of the other academics who earned Nobel Prizes.

There are many types of games in the theory of games, including Matching pennies, Driving game, Chicken and Prisoner's Dilemma. In this study, we will focus on Prisoner's Dilemma since it is based on cooperation with players and defection from agreement, and it emphasizes on the distribution.

In the theory of games, there are two main strategies: first, *mixed strategies* that calculate the possibilities between payoffs. This study will not focus on mixed strategies since these are irrelevant to our problem. This study will discuss *pure strategies* that offer only cooperation and defection for the players. Also this study will not discuss calculus as part of the explanation of game theory.

Nash (1951) offers an equilibrium in which it is impossible for a player to increase his payoffs without the opponent changing his strategy. In prisoner's dilemma, there is at least one Nash equilibrium (Nash 1950). These equilibriums are the status of both players' cooperation and defection.

Nash equilibrium was first applied to moral theory by R. B. Braithwaite (1963). Moral theory was in decline and Braithwaite tried to explain morality using the rigid terms of theory of games. On the other side, Thomas C. Schelling (1960) used theory of games to explain international relations. Schelling opened up the international relations horizon, and it has been especially used to explain arms control between the Soviet

Union and the US and even after the Cold War, it is still one of the most important tools of this discipline.

Nash, Morgenstern and von Neumann offer only one-time playing of this game. However, after these scholars, this branch of study has continued to grow, and evolutionary game theory suggests that when the game is repeatedly played it has reached only one Nash equilibrium. Evolutionary game theory was used by John Maynard Smith and George R. Price (1973) in the discipline of biology to explain why populations of species are in equilibrium. Axelrod (1984) maintains that if the game is iterated, the conclusion will be cooperation. On the other side, Skyrms (1996) implied that a fair distribution might not evolve through the iteration of the game.

Scholars in the theory of games are inclined to focus on the cooperation, and they have tried to constitute a social cooperation. However, we have two Nash equilibriums, and the discipline of calculus is not enough to change Nash equilibrium to the favoured one. Thus, scholars in these disciplines are inclined to use sociological terms (Axelrod 1984; Skyrms 1996; Binmore 1989, 1994, 1998, 2005 and Sugden 1978, 2006). In this manner, Contemporary Theory of Games regards the social contract as an equilibrium.

On the other side, social contract theory has been in decline for almost a century and a half. Rawls (1985, 1993, 1999a, 1999b, 1999c, 1999d, 2001) revived this terminology due to showing that it is higher than the utilitarianism that had overthrown the classical social contract theory. After this revival, Tim Scanlon (1998), Thomas Nagel (1991), David Gauthier (1977, 1986, 1990, 2006), James Buchanan (1975, 2004) are the other contemporary contractarians. Also, Carole Pateman (1988) and Charles W. Mills (1997) explain sexual and racial inequalities using the contractual basis.

Social contract theory has been revived, but it carries a different notion. While the classical social contract theory aims to determine rights and duties between the State and the individual, contemporary social contract theory attempts to establish social cooperation between the individuals. Rawls, for example, suggests that a fair society maintains a fair social cooperation (1999a).

This study will focus on Rawls, Gauthier and Buchanan. We have two reasons: firstly, these three scholars focus on distributive justice, and secondly, especially Gauthier and Buchanan use theory of games terminology to explain constituting the society, and the Rawlsian difference principle in the original position is a bargaining position. Groups have used the maximin strategy (difference principle) behind the veil of ignorance.

These academics offer two different contracts. First, is establishing the principles of justice (Rawls) and State and society (Gauthier and Buchanan). The second contract is about social cooperation. The second contract is the answer of why an individual would obey the principles of the first contract. Thus, rather than a State and individual relation, they proposed a social cooperation between individuals. These categorization has crucial importance for this study since these academics explains the first part as a bargaining game of theory of games.

On the one hand, both traditions try to establish a social cooperation, and both traditions use their concepts. There is absolute interaction between two branches. For example Skyrms (1996) tries to lose the *Darwinian original position* in which no one knows who they are going to match with in the real world and he uses the concept of *Darwinian categorical imperative*. On the other hand, both traditions are rational choice theory. Skyrms (1996) proposes a naturalistic approach to the social contract. He proposes that “the shift from the perspective of rational choice theory to that of evolutionary dynamics makes a radical differences” (1996, xi). Thus, it is important to understand whether or not it is possible to explain social contract theory using the theory of games. In this study, I will not try to maintain an explanation of social contract theory using game theory. However, my intention is to understand if it is possible or not.

Both game theory and the contemporary social contract aim to establish social cooperation. Thus, if one intends to explain social contract theory using the theory of games, the conception of social cooperation of both traditions has to be the level of analysis. In this manner, the question of whether or not it is possible to explain the social

contract tradition using the game theory involves the comparison of social cooperation conceptions of both traditions.

Furthermore, for Nozick, Rawlsian justice is blamed to create a specific patternship and Rawls favours the Welfare State. This study shows that Rawls does not favour the welfare state. Welfare state proposes a distribution based on bargaining game between labour and bourgeoisie. However, Rawls proposes a critique this distribution since one of the party has potential loss.

In the second Chapter, this study will focus on the game theory. We will divide the chapter into three. The first part will discuss what the Nash equilibrium is and it will be presented in a two-by-two matrix with prisoner's dilemma. Evolutionary game theory will be the main focus of this part, and it will discuss Axelrod's (1984) explanation of how the iteration of the game concludes with social cooperation.

In the second part of the second chapter, Braithwaite (1963) and his game theoretic solution to morals will be discussed. Luke and Matthew are the two bachelors living in flats next to each other. They have only 9 to 10pm as recreation hours, and they have no chance to change this recreation time or to move out. Also, they both intend to play an instrument in their recreation hour. Matthew has threat advantage over Luke in which Luke is having more fun listening to Matthew's instrument. Braithwaite depicts this problem as a prisoner's dilemma, and he uses maths to make interpersonal calculations. This is the first implication of the impact of game theory on morals and thus it presents some problems. According to Nash equilibrium, Matthew should play 93% of the time, and Luke should play for 7%. Because of the threat advantage of Matthew, he can play more than Luke. Braithwaite finds this solution unfair and proposes another solution. He does not ignore threat advantage; however, he reduces the multiple of the threat advantage. In his equilibrium, "Matthew should play 26 evenings average of 43, and Luke should play piano 17 evenings average of 43 nights" (Braithwaite 1963, 54).



In the third part of the second chapter, evolutionary game theory and its impact on social cooperation will be discussed. Evolutionary game theory suggests that when a society or species has used a common strategy, it is impossible for outsiders to use an alternative strategy to become part of the society. When prisoner's dilemma is repeated through time, this common strategy is a *polymorphism trap*, and Skyrms (1996) maintains that this polymorphism might not be a fair distribution. Even when fair distribution supporters have evolved into the society, they have no chance to overcome evolutionary stable strategy. To understand what is fair, we will talk about cake distribution. When there is no threat advantage, fairness involves the equal distribution of the payoffs. To solve the polymorphism trap, Skyrms suggests a convention model in which every individual expresses his strategy before the game. This convention model is applied externally.

Binmore on the other side, to ensure cooperation, suggests that "rational players might agree in the presence of external enforcement" (2005, 81). He maintains that when an individual chooses defection to gain more, in the next round he will be punished by the other players, and he is concluded with the lower share of cooperation.

At the end of the second chapter, we will talk about three characteristics of the social cooperation understanding of the evolutionary game theory. Social cooperation in the social contract should fulfil these terms if we have intended to explain social contract based on game theory. Firstly, calculation of the utility is necessary to compare interpersonal desire. Secondly, social cooperation is constituted by external forces, namely an arbiter and tools, in the theory of games. Thirdly, it is a bargaining position in which to constitute the equilibrium; one of the players has the potential loss on the outcome.

In the second chapter, we have discussed the measurability of the social contract and whether or not it is possible. In the first part, the history of the social contract tradition will be sketched. In the second part, Hobbes, Locke and Rousseau will be mentioned. Hobbes and Rousseau offer an equilibrium; however, this is not the calculation of the utility.

In the third part of the second chapter, this study will focus on why the social contract was in decline in the nineteenth century. Bentham suggests that the age of fiction is over, and on the other side Sir Leslie Stephen (1968) maintains that social contract tradition is insufficient to regulate commercial affairs. It shows that classical social contract does not offer measurable equilibriums.

However, the contemporary social contract theory focuses on distributive justice and Rawls, Gauthier and Buchanan offer measurability of the outcome. Rawls (1993, 1999a, 1999d, 2001) maintains that when all primary goods are distributed equally, only income and wealth can be distributed unequally for the sake of the least advantaged. Gauthier (1986) identifies rational choice as maximization of the utility. Buchanan (1975) explains the constituting of the State as maximization of the utility.

In the third chapter, the emphasis is on contemporary social contract theory. In each part we will focus on different contemporaries. In the first part of Rawlsian justice the subject of the justice will be discussed. The subject of the justice is the social institutions, and fair society should ensure fair social cooperation. “Original position models identify what fair terms of cooperation are” (2001, 17).

The second part of the Rawlsian justice will focus on what the principles of justice are and how to justify them. Rawls suggests that an individual has moral power to determine what the principle of justice is and, thus, the original position that forbids any knowledge on the parties about their social status becomes internal. Two principles of justice will be represented, and it will be concluded that the difference principle does not try to protect only the least advantaged group, but also the most advantaged. Inequalities should be beneficial for all. It shows that the difference principle is not a tool to reduce the most advantaged share to interrupt sacrificing the least advantaged.

In the third part of the Rawlsian justice, critics of utilitarianism will be discussed. The first critique is the sacrificing of the least advantaged and the difference principle aims to overcome this problem. The principle of reciprocity chooses a point between equality and efficiency. Moreover, Rawls depicted a bargaining game in the original

position; however, the exercising part of the difference principle is not a bargaining game. Only in the original position, groups use a maximin strategy that increases the minimum share. Rawls assures that the principle of utility will not be chosen in the original position since the difference principle is more efficient than the principle of utility.

In the second part of the fourth chapter, Gauthier will be discussed. Gauthier (2006) depicts morality in a foundational crisis, and he intended to explain morality by using rationality. State of nature proposes a bargaining game. Rationality demands players to cooperate since in this way they would gain more. Non-arbitrary society ensures the stability offering everyone more pay-offs than the natural outcome (Gauthier 1990).

In the last part of the fourth chapter, Buchanan (1975) and constitutional contract and post-constitutional contract will be mentioned. As with Gauthier, Buchanan depicts the social contract (constitutional contract) as a bargaining game. However, the post-constitutional contract should offer more payoffs than a position where there is an absence of social cooperation.

Through these three contemporary social contract theories, this study will attempt to gain an understanding of social cooperation. We will compare this understanding with the three characteristics of the theory of games on social cooperation.

## **CHAPTER II**

### **THEORY OF GAMES AND SOCIAL CONTRACT**

#### **2.1. THEORY OF GAMES**

Theory of Games, commonly known as game theory, is the study of working on how self-interested individuals behave in the bargaining position. It is a branch of mathematics and economics, and it attempts to establish equilibrium between the utility of the individuals. Especially, in terms of economics, it calculates the utility and tries to distribute it. The principle of utility is the rigid version of happiness as Bentham suggests (1948).

Robert Serrano (2010) characterizes the three essential ingredients of game theory and the bargaining position: firstly, there is a disagreement point showing the utility gain in a situation of absence of agreement; secondly, reciprocal gain from the cooperation; thirdly, possible cooperation systems splitting the surplus between the individuals.

“The utility theory is the dominant one, and a utility function is a mapping from states of the world to real numbers” (Layton and Shoham 2008, 1). Both in economics and political science, namely distributive justice, it is the utility of the individual, which addresses economic distribution of common goods. As a consequence, all numbers in this work will direct income since the distributive justice addresses distribution of income. The study will focus on whether or not it is possible to explain social contract theories on the basis of game theory. In the next chapter we will discuss why we can ask this question only for contemporary social contract theories.

Von Neumann and Morgenstern (2004) are the first scholars who adapt game theory into the discipline of economics. In *Theory of Games and Economic Behavior*, von Neumann and Morgenstern introduce the utility theory and pure and mixed

strategies. Pure strategies are the strategies of opponents only in the way of cooperation or defection, while the mixed strategies calculate the probability of actions in the games. We will debate theory of games on the basis of pure strategies since our discipline does not allow us to calculate any probabilistic account.

John Nash (1951) made a contribution to the theory of games when he proved his equilibrium, which means that without opponents' strategy change, it is the most profitable point for the players. Furthermore, he introduces the idea (1950) that every non-cooperative game has at least one equilibrium.

There are two branches of the theory of games: (a) non-cooperative and (b) cooperative games. Cooperative games do not calculate payoff under the situation of defection. In this work, this study will not focus on cooperative games since it does not offer two possible actions, cooperate and defection, on the agreement. In cooperative games, individuals always cooperate. There is no chance to defect from the agreement.

On the other side, (b) non-cooperative is the main branch of the theory of games, and it offers two possible pure strategy movements on the agreement: cooperation and defection. The share of defection is the best move during the other's cooperation; if they both defect, there would be an anarchistic state and they both gain less than in the position in which two individuals consent to cooperate. The share of cooperation is not the highest point of distribution, but it is higher than an anarchistic state. The prisoner's dilemma<sup>1</sup>, which is the most emphasized work in the non-cooperative game theory can be shown in this way:

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<sup>1</sup> The Prisoner's Dilemma is the story of two caught vigilantes and the numbers represent each year they will have sentenced, which means that lower number is more preferable. However, in this work, to avoid a mathematical way of understanding, the numbers will be presented in a positive way in which the higher share is better than lower.

Table 1: Prisoner's Dilemma<sup>2</sup>

	Individual 1		
Individual 2		cooperate	defect
	cooperate	6/6	1/10
	defect	10/1	2/2

Nash's equilibrium is an equilibrium in which people cannot improve their gain without a change of the other's strategy (Nash 1951). In Table 1, if they both defect from the agreement they will gain only two. On the other side, one-sided cooperation will increase the other's share if the individual is defecting and vice versa. This state of one-way cooperation will conclude with the highest share of the defector. However, if they both cooperate they gain six. Two-sided cooperation and defection are the Nash equilibriums since neither individual can gain more unless the other's attitude changes.

Smith and Price (1973) explain the biological actions of the species by the evolutionary game theory. Rather than an instant selection of the strategy in the prisoner's dilemma, in the evolutionary game theory players achieve the equilibrium through the repeated prisoner's dilemma. In the discipline of biology, it has been used to explain the motives of animals - which are irrational. However, it is possible to impose evolutionary game theory on both economics and political science.

Classical game theory assumes that players would behave in perfectly rational ways. On the other side, evolutionary game theory states that the equilibrium is the process of error and mistakes. Thus, players will behave under the evolutionary force based on the earlier games. The main difference between the evolutionary and the classical game theories is the level of rationality of the players. In the evolutionary game theory, players will act through the time by the evolutionary forces. In this manner,

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<sup>2</sup> Numbers are chosen arbitrarily.

strategy or decision rules in the prisoner's dilemma become more important rather than the two instant choices enabled in the prisoner's dilemma game.

Evolutionary game theory was first established to understand the sex ratio of the species in the discipline of biology. When two species are in a position in which they threaten each other, once the equilibrium is enabled, it resists itself from the invasion of other strategies (Smith and Price 1973, Smith 1982). This approach supposes that the whole population is exercising the same strategy and a mutant, on the other side, enters into the prisoner's dilemma with another strategy. The strategy of a mutant is to invade the society, which is not possible unless the mutant takes the highest score – payoff or fitness - compared to native interaction with native. For Price and Smith, due to the population ratio between the mutant and the natives, interacting with the native for the mutant is equal to the native meeting with the native. It shows that the mutant can gain higher fitness by meeting with the native, rather than interacting with another mutant. In this manner, the point that is better than the mutant-mutant meeting is the evolutionary stable point. It shows that no mutant can invade the society through different strategy. They need to use common strategy to survive, and it is the foundation of the cooperation.

Beside the technical details, which were not relevant for political science, evolutionary game theory is the evolutionary justification of the Nash equilibrium. "Every evolutionary stable strategy requires Nash equilibrium" (Sandholm 2007, 8). Thus, if the equilibrium remains the same, the evolutionary one is the cooperation. While Nash (1952) proposes that every non-cooperative game has at least one Nash equilibrium. Evolutionary game theory suggests that through the iterated prisoner's dilemma, there is only one Nash equilibrium.

In economics, in every round of the prisoner's dilemma, marginal utility of the game is decreased which means that the payoffs are reduced. In this position Axelrod (1984) suggested that if the decrement of payoffs compared to every round is

sufficiently high, the best strategy is Tit For Tat<sup>3</sup>. Tit For Tat is a strategy of cooperating first, then applying what the opponent did exactly. It is a “forgiving” strategy since its memory includes only one round, and it is “nice” strategy since it cooperates on the first round. On the other side, two of the many strategies are the ALL D, implying defection all the time, and ALL C, choosing to cooperate all the time.

As in the native-mutant example, let’s suppose that group 1 has the strategy of Tit For Tat. When group 2 has decided to execute the strategy of ALL D, Tit For Tat will always defect. On the other hand, Group 2 has decided to apply ALL C, Tit For Tat will always cooperate. At this point, rather than a Tit For Tat strategy, calculation differences between ALL C and ALL D gained importance. As in Nash equilibrium, if group 2 chooses the strategy ALL C, they would gain more than the implementation of the ALL D.<sup>4</sup>

## **2.2. MORAL THEORY AND THEORY OF GAME**

R.B. Braithwaite is the first scholar who tried to apply game theory to moral theory. Braithwaite uses mixed strategies - this kind of strategy is not our concern in this study - however, it is still important since it is the first to apply game theory to morals. During the decline of moral theory in the mid 20<sup>th</sup> century, Braithwaite (1963, 3) criticizes moral philosophers for “living in ivory towers where they mediate upon morality without ever descending to earth to apply their abstract studies in giving practical advice.” His aim is to propose the earthly answers to the problem of ethics. He uses theory of games to explain his moral theory.

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<sup>3</sup> In 1980, Axelrod organized a tournament for academicians to decide which strategy is the best. The tournament was played by computers and it repeated several times. Tit For Tat was the winner for all rounds.

<sup>4</sup> Technical details will not be shown here. For mathematical explanation, see also Nash (1950, 1951), Sugden (1986), Axelrod (1984), Smith and Price (1973), Smith (1982).



In his theory (Braithwaite 1963), Matthew and Luke are two bachelors living in two flats lacking acoustic insulation which means that Luke can hear everything in the next room and vice versa. They have no choice to move out economically, and they have only one hour from 9 to 10 every evening for recreation. It is impossible for them to change the recreation hours. While Luke's recreation is to play piano, Matthew's is playing jazz trumpet. They have no intention to pass some day or to choose to go out. They have a desire to play trumpet or piano every night. In this position they are both rational and both of them want to play their instrument as much as possible. Here is the utility table for both Luke and Matthew:

Table 2: Interpersonal Comparison of Luke and Matthew's Utility (Braithwaite 1963, 64)

		Matthew's Utility	
		M <sub>1</sub>	M <sub>2</sub>
Luke's Utility	L <sub>1</sub>	100/200 (T <sub>11</sub> )	700/300 (T <sub>12</sub> )
	L <sub>2</sub>	400/1000 (T <sub>21</sub> )	200/100 (T <sub>22</sub> )

Within these limitations, they have four basic combinations; both of them play (T<sub>11</sub>), only Luke plays while Matthew does not play (T<sub>12</sub>), only Matthew plays while Luke is silent (T<sub>21</sub>), neither of them plays any instrument, they are both silent (T<sub>22</sub>).

Luke's first preference is for himself to play his instrument alone (T<sub>12</sub>), secondly, he quite likes hearing trumpet when he is alone, and he chooses Matthew playing alone (T<sub>21</sub>), thirdly both of them are silent (T<sub>22</sub>) and finally he desires to play while Matthew plays an instrument is the last choice (T<sub>11</sub>).

If enjoyment of the other's instrument were the same as the utility of playing his own instrument, Luke and Matthew would play every night. One way or another, the utility they gather will be same. This kind of case is the wholly non-competitive

collaboration, which is the non-competitive game.<sup>5</sup> On the other side, in the wholly competitive situation (non-cooperative game) there is a conflict between the players' utility. In this manner, their line of utility is in opposite directions. In this way, one side's satisfaction is the other's annoyance and vice versa.

Braithwaite (1963) determines two types of strategy in the theory of games. The first one is the independent choice of strategy rather than one based on the other's choice. In this position the opponent's strategy has no importance since the strategy is chosen by rational means. This strategic stance is prudent for Luke; on the other side, Matthew chooses his strategy based on the assumption that Luke will choose the strategy by the most rational means. In this type, the second one, Matthew has strategic advantage.<sup>6</sup>

Braithwaite states that von Neumann recommends that "Luke should play the piano one evening in four on the average" (1963, 18). Mixed strategies proposed by Neumann and Morgenstern suggest a chance device to decide which equilibrium is chosen. Adapting the mixed strategy means that players will calculate the possibility of utilities and choose the highest possibility. In the long-term, Luke will obtain the same whatever strategy of annoyance Matthew adopts. In the long-term, both Luke and Matthew are equally annoyed, and the possibility determines the day that each one is to play his instrument.

As in the first type, von Neumann's suggestions are also prudent. Von Neumann shows that there is a maximum point that is compatible with any choice of strategy by the other. So, von Neumann is unable to make any recommendation to collaborators... "each of them should secure at least as much as would be secured by using his prudential strategy" (Braithwaite 1963, 20-21). In this manner, we should first determine the lowest point that both Luke and Matthew would agree on.

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<sup>5</sup> Braithwaite did not want to use theory of games jargon.

<sup>6</sup> The first kind of wholly competitive game in Braithwaite's term is the ultimatum game. Ultimatum game is when the player determines his/her strategy independent from the other and the second one determines his strategy due to the first player's attitude.

Pareto improvement is the improvement of both sides without any opposite position. Pareto efficiency then is the point that the one cannot be better without the decreasing of the other. When Braithwaite criticizes the von Neumann solutions, he implies that the point of Pareto efficiency should be determined, and this point is the lowest share that individuals would agree on. Pareto frontier represents the outcomes of what Braithwaite calls coupled strategies in that the point on “it can be reached only if Matthew and Luke coordinate their actions so that on an evening when one plays the other does not” (Barry 1989, 377).

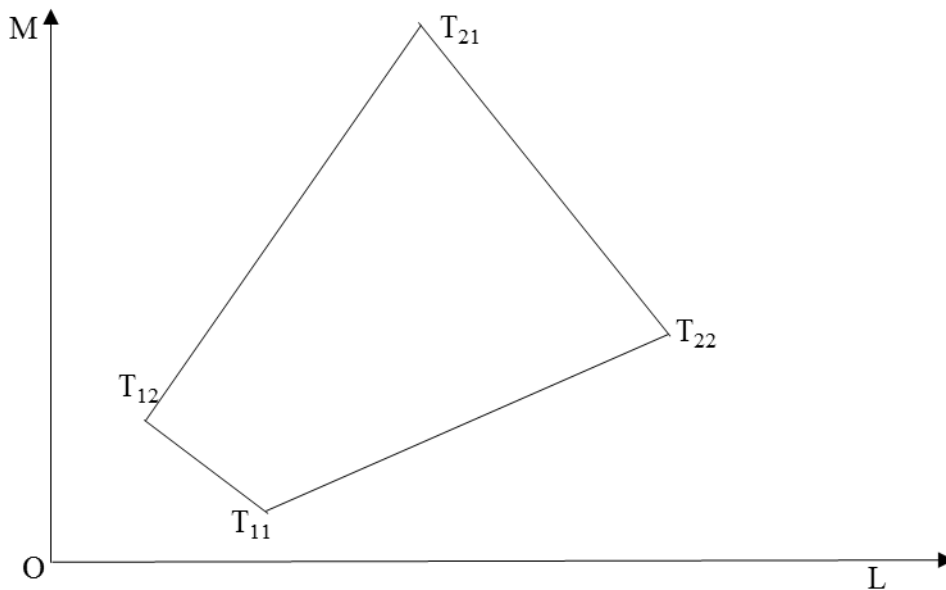


Figure 1: Bargaining Area between Luke and Matthew

The area between DABD is the bargaining position between Luke and Matthew. D is the minimum point for Luke while A is the minimum utility point for Matthew. On the other side, C is the maximum point of utility for Matthew while B is the maximum utility point for Luke in which one of them plays his instrument.

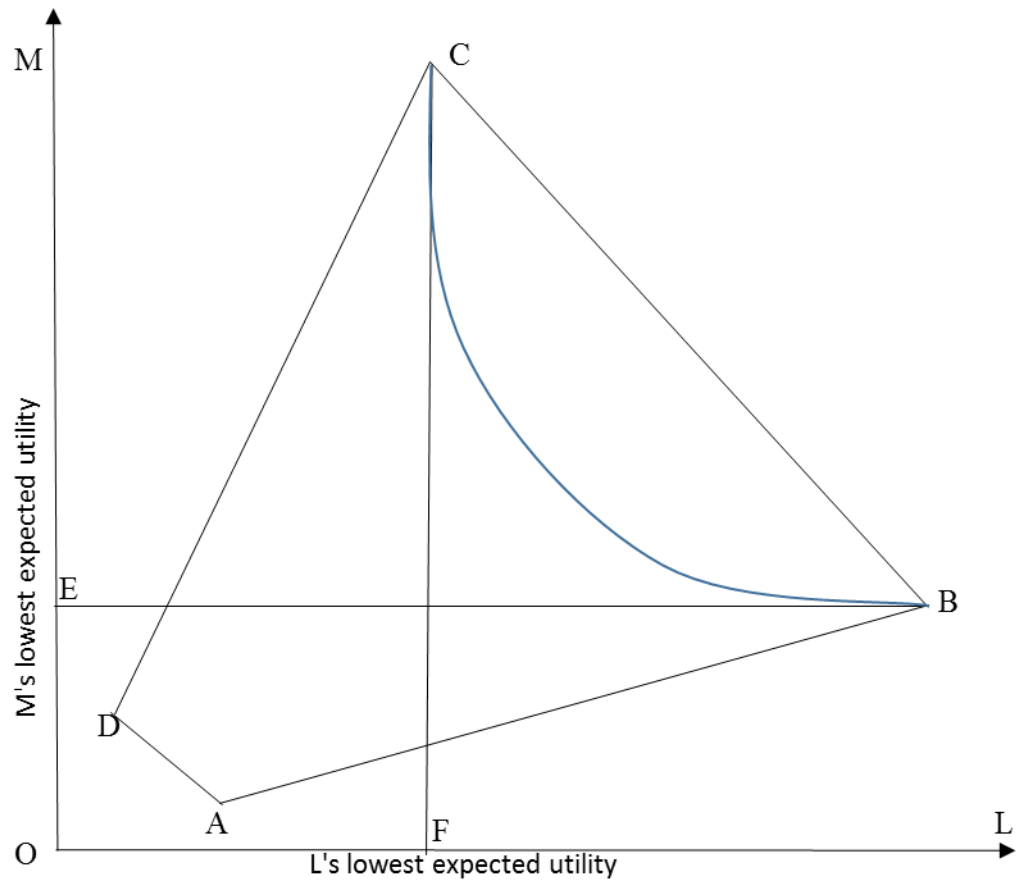


Figure 2: Pareto Improvement and Pareto Efficiency

Braithwaite suggests that if we consider all the chances of two players in two different diagrams we can find the minimum point that they can agree upon. CD line is the last choice since both of their times coincide in departure from D point to B point represent the time schedule of every chance. Point B is the point at which they never coincide and they both play their instruments. Our notion is that as soon as possible they both play and never coincide. Our bargaining line should be in this parabola. Thus, between C and B there is a parabola that never shows coincidence. The parabola of CEFB is the parabola of Pareto efficiency. Moreover, in this manner, points E and F represent the minimax strategy of players, which means that utility is when one has minimum utility and the other maximum utility. Thus, CEFB is the Pareto frontier, which means that one cannot gain more without the other losing.

Luke is having fun more than the jazz while Matthew's utility is from the piano. Thus, Nash equilibrium favours Matthew. Braithwaite finds that according to Nash equilibrium, there is a solution that favours Matthew. According to Nash equilibrium, Matthew should play Jazz 93% of the time. This favours Matthew, since "threat advantage" is higher than for Luke. We need to remember that Luke's utility is higher in listening to jazz compared to Matthew's utility on piano.

Nash equilibrium is the maximum utility point in which they cannot gain more without the other changing his/her strategy. For our example, a 93% rate of playing the instrument in the evening for Matthew and a 7% rate for Luke is the best point without the other changing his strategy (Barry 1989, 379). However, Braithwaite finds this solution unfair.

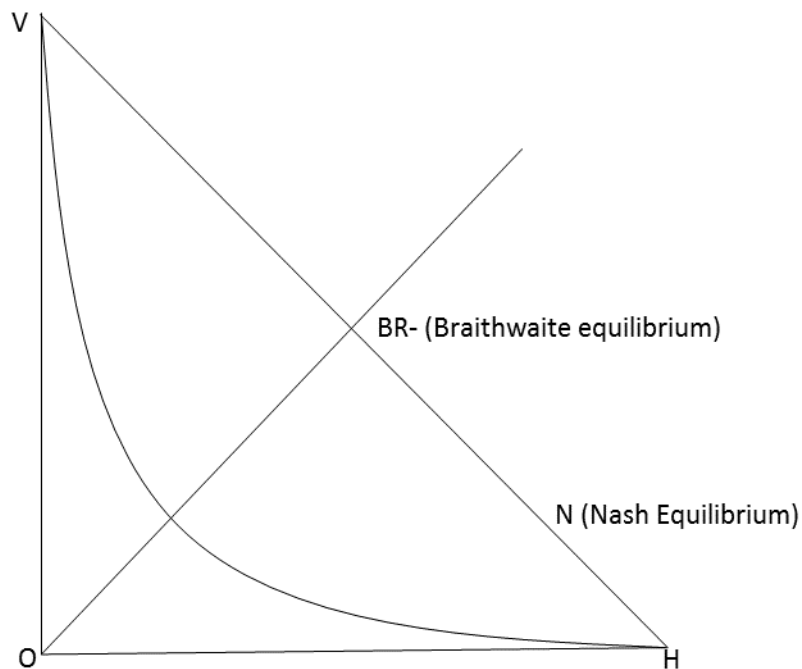


Figure 3: Braithwaite's Solution (1963, 43)

Braithwaite suggests that after determining the lowest expectation, which is the utility gained by the other's full time playing of the instrument, the difference between OH and OV has to be equated. Nash equilibrium is not concerned with this fairness. Thus, Braithwaite draws a linear line with 45 degrees from the point of two's minimum expected utility crossed. Beside the mathematical explanation, "Matthew should play his instrument 26 evenings average of 43, and Luke should play piano 17 evenings average of 43" (Braithwaite 1963, 54).

Our concern is not the mathematical explanation of the rate of playing the instruments. The important factor is why Braithwaite is not satisfied with the Nash equilibrium, as he proposes this equilibrium is unfair. "A solution is fair if it has the property that Matthew and Luke gain equally in the move from the non-agreement point to the Pareto frontier" (Barry 1989, 39).

Another problem is that while changing the solution or equilibrium, he is the arbiter of the game. He decides upon what the fairness is. On the one hand Braithwaite tries to determine fair in the mathematical sense - his main problem -, but on the other hand, he is not satisfied with the Nash equilibrium, and he tries to determine another equilibrium.

Braithwaite does not ignore the threat advantage between players; he just decreases the multiplier of it by drawing a line at 45 degrees to the Pareto frontier. Both sides leave the Pareto frontier with an equal departure.

### **2.3. EVOLUTIONARY GAME THEORY AND SOCIAL CONTRACT**

Evolutionary Game Theory, as stated above, suggests that the games are repeated. Furthermore, it adds to the classical game theory the notion of population. To explain, I will talk about distribution of cake.

Suppose that there are two persons trying to manage the cake. One can desire to have all the pieces but in this way the other player gets zero and vice versa. On the other side, the only possibility for two to agree is to demand half of it. This is the best point they can achieve, and it is the maximum point (Nash equilibrium). Skyrms (1996) believes that this kind of distribution is fair but it is unclear why. One can say that it is half of the resources shared between equal persons; one can say that it is half of the utility and also one can say that it is the most natural and rational way to distribute it. But it is not clear from Skyrms' account why this distribution is fair.

Within this example, if one demands more than half of the cake he gets nothing and if one demands less than half he achieves what he desires. One step further, suppose that there is a population and they have been randomly matched with each other in this game. Some individuals demand  $7/10$  pieces, while others demand  $3/10$ .  $3/10$  claimers won all the time when they meet with each other, or  $7/10$  claimers. On the other side,  $7/10$  claimers can gain this share only when they meet with the  $3/10$ . In the average utility, one of the claimer groups would gain more than the other.<sup>7</sup> In this manner, some of the claimers will change their strategy to gain more. But when every individual changes his strategy, his new group's average utility will decrease. This kind of fluctuation will last until the share of the group lies in equilibrium. This is the evolutionary stable strategy (Skyrms 1996).

In the next step, suppose that there is another group coming. They need to gain at least  $3/10$  claimers, otherwise they cannot survive within the society. If they choose to demand more than  $7/10$  they will get nothing no matter who is matched. If they demand less than  $3/10$  in every pair, they will gain what they want, but it is impossible for them to invade the species or society. Thus, fair new comers will eventually evaluate to demand  $5/10$ . But in this position they will only gain when they match with the  $3/10$  claimers. However, they will not gain more than the  $7/10$  claimers. In this manner, they cannot survive. Evolutionary stable strategies have a "polymorphism trap" which means

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<sup>7</sup> It is purely mathematical. It is up to number of the claimers since we divide the total sum of the group this number.

that it is hard to adopt (Skyrms 1996). Evolutionary game theory shows that when a group reaches stable strategy, newcomers with a new strategy cannot invade the society. Different strategy will cause them to suffer, thus, the cooperation was invented. As stated above, when a player adopts Tit For Tat, it is rational to adopt cooperation with the other. However, Skyrms' purpose is that it concludes this evolution with fair distribution. There is no guarantee the evolutionary stable strategy is the fair one.

Our game is a joint randomized strategy in which no one knows who is going to match in the bargaining position. To avoid the polymorphism trap, Skyrms (1996) suggests reducing the random rate of matching. In our example, people would match each other at a perfect random state. However, what will happen if they know the other's strategy?

In this position, "cheap talk" is free from the payoffs of the game. It does not affect the payoffs. Skyrms suggests that through convention and signals players can know each other's strategy. In our situation, new-comers need to earn more than the lowest group at least, otherwise they would vanish. Suppose that *fair-mutants* have evolved demanding  $5/10$  of the distribution. When these mutants signal their preferences,  $3/10$  claimers would increase their share due to earning more. When they have increased their share, there would be fluctuation from  $7/10$  claimers, since they have started to gain more. This fluctuation will cause transferred players to enact a  $5/10$  claim. In this position, the average utility of  $7/10$  claimers could have increased due to low population, but there is no group to cooperate with  $7/10$ . In this manner, our game has turned to a simple cake problem that we have mentioned before. If you claim  $\frac{1}{2}$  and/or less than  $\frac{1}{2}$  you would earn your demand. On the other hand, if you demand more than  $\frac{1}{2}$  you have 0.



The cheap talk or the convention becomes a position arranging matching between individuals within the population, and it is a place in which people would express themselves.<sup>8</sup>

It shows that evolution or an evolutionary stable strategy does not provide the criterion of fairness. Also, Skyrms (1996, 20) himself admits that his evolutionary analyzes does not yield the proposition that perfect justice must evolve. To enact a fair evolutionary stable strategy, which is one of the equilibriums among others, we need the convention in which people express themselves.

As with Braithwaite, we have seen that there is an equilibrium that is not fair. In this manner, both Braithwaite and Skyrms adopt fairness with an external situation. There is an arbiter in Braithwaite to impose fair distribution and there is externally founded convention in Skyrms in which every individual does not intend to create convention model. “The individual would consent to what is suggested in the convention since any unilateral deviation from fair division results in a strictly worse payoff” (Skyrms 1996, 11).

In *Evolution of Cooperation*, Axelrod (1984) argues that repeated prisoner’s dilemma will eventually arrange a mutual cooperation and he offers a Tit For Tat strategy. However, Vanderschraaf argues that “a Tit-For-Tat population can also be invaded by a mutant group who follow the grim strategy of cooperating until the other defects once, and then defecting always” (1998, 35). Also, Binmore (1998) argues that no pure strategy can be evolutionary stable. The reason why it cannot be is not our concern in this study.<sup>9</sup> More important is that Binmore suggests that there is no unique type of cooperation. Binmore argues that it is “unnecessary to focus on a single strategy as being a correct way to explain cooperation” (1998, 322). He maintains that TIT FOR

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<sup>8</sup> This kind of game refers to the signalling game, which sends signals to other players about what he has intended to do. See also Lewis (1969), Crawford and Sobel (1982), Farrell (1987).

<sup>9</sup> One of the most eminent studies is another computer game tournament. Linster (1992) shows that no single pure strategy could have diminished the others.

TAT is a “nice strategy” cooperating in the first round. To establish social cooperation, nice strategy is not necessary.

It shows that a society is not a Tit For Tat society since there is no pattern in the way of determining cooperation.<sup>10</sup> And also it is a challenge to the equilibrium understanding of social cooperation.

Harsanyi (1975) assumes that in a Rawlsian veil of ignorance, the principle of utility will be enacted. In the situation of uncertainty individuals would risk the possible payoff they will gather. Harsanyi suggests a different type of game, which is known as Bayesian in which no one knows his/her payoffs. This situation is totally counter to what Rawls (1975) stated. On the other side, Rawls (1975) believes that people would use a maximin strategy (difference principle), which increases payoffs for minimum receivers. However, Binmore (1998, 437) achieves this result in calculus from the Bayesian games.

On the other side, Binmore criticizes utilitarianism in this way: “the unwelcome truth is that practical morality does in fact endorse the exploitation of those powerless to resist” (1998, 258). This criticism of utilitarianism is highly influenced by John Rawls in which his first motive is to constitute a new understanding of justice.

As with Skyrms, Binmore refuses to give specific distribution. Furthermore, he resists the idea that fair distribution can be determined. Like evolutionary game theory, his understanding of contract includes a new arrangement, not only an instant one-turn game. If conditions have developed so that the current social contract is no longer optimal (Vanderschraaf 1998), a new social contract will emerge. Furthermore, it lasts until conditions are not optimal for the parties.

However, if social contract is an equilibrium in the bargaining game, there should be a way to implement social cooperation. Binmore suggest that “every contract on which rational players might agree in the presence of external enforcement is available as an equilibrium outcome in an infinitely repeated game” (2005, 81). It shows

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<sup>10</sup> Nozick in *State, Anarchy and Utopia* (1974) could be useful for declining any pattern for the cooperation.

that in natural understanding, a bargaining game would conclude with a sacrificing problem for “powerless” individuals in the society. There should be an arbiter to arrange this rate between two parties. Differing from Braithwaite and Skyrms, the external punishment side is one of the bargaining sides. Braithwaite is not the party in the bargaining, as is Skyrms.

In this way, the problem of consent has been solved. Firstly, they need to cooperate, otherwise another would punish<sup>11</sup> the defected one in the next turns, and if they are cooperated but they are not satisfied they can have a new social contract in which one party has potentially lost through the equilibrium over and over.

In this chapter, we have observed pure strategies, evolutionary game theories and their application to moral theory. It is impossible to explain classical social contract theory with the theory of games since it is impossible to enact any measurable utility. We will discuss this point in the next chapter. In this manner our focus is contemporary social contract theories since distributive justice ensures measuring utility.

Under the light of Braithwaite (1963), Skyrms (1996) and Binmore (1994, 1989), the game theory approach maintains that social contract is an equilibrium. Our question was whether we could explain social contract theory based on game theory or a naturalistic approach. However, on this point, we can reduce our question to how social contract theory and game theory adapt social cooperation. If they have the same understanding of social contract, it shows that social contract is one of the theories of games. And it means that it is prisoner’s dilemma. If we intend to explain contemporary social contract theory based on a game theory approach (or naturalistic approach), understanding social cooperation of social contract theory should fulfil these terms.

Theory of utility made it possible to calculate utility and it is also a tool for interpersonal comparison. Firstly, it is necessary to calculate utility in our study since

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<sup>11</sup> Both Grim strategy and Tit For Tat have punishment since after defecting Grim never cooperate again and in Tit For Tat at least one round will defect. As stated above, Binmore refuses to determine one unique pure strategy concluding with cooperation.

only in this way we can play the theory of games. In this manner, the social contract theory should provide calculation of utility.

Braithwaite (1963) was not satisfied with the Nash equilibrium between Luke and Matthew, and he acted as arbiter to construct another distribution, namely more fair. In our examination, there should be an arbiter who determines what is fair. On the other side, Skyrms suggests that through convention in which individuals express their preferences on pure strategies the cooperation can be constituted. Since there is no room for the normative ethics in theory of games, this convention model becomes externally imposed. Social cooperation is reached by externally imposed constraints. Thus, secondly, there should be an arbiter to impose external tools. However, how can an individual be sure that others will obey the equilibrium?<sup>12</sup>

It is hard to explain in game theory social cooperation since one of the sides would lose his potential gain. It is a bargaining game. I believe neither Binmore nor Skyrms could have solved this problem. Thirdly, does contemporary game theory offer an understanding of social cooperation to imply a theory of games in which one party's share will decrease with the equilibrium?

We have three constraints on game theory understanding of social cooperation: (1) measurability of utility, (2) externality of arbiter and tools and (3) accepting an equilibrium which one side has potentially lost. In the next chapter, we will discuss whether social contract theory offers calculation of utility.

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<sup>12</sup> Neither Braithwaite nor Skyrms' arbiters enforce individuals to obey.

## **CHAPTER III**

### **MEASURABILITY OF THE SOCIAL CONTRACT TRADITION**

#### **3.1. BACKGROUND OF THE SOCIAL CONTRACT**

This study will focus on whether we can explain social contract theories with the theory of games. As suggested in an earlier chapter, if we have intended to explain social contract theories with theory of games, first we need a device for interpersonal comparison. In this chapter, we will focus on classical social contract theories and whether they have the facility to compare individuals' desire. To construct a basis to discuss this problem we will focus on the background of the concept of social contract.

The Stoics formed one of the most important schools in the Hellenistic Age. They were highly influenced by Plato and Aristotle. "Like Plato and Aristotle, they found man's nature, not in his animal nature, but in his reason; however, they made this a guide to individual conduct" (Gough 1957,19). The maxim of "live according to nature" does not offer a citizenship as nature believed in Aristotle relying on "political by nature".

According to the Stoics, each man is a member of two communities; firstly, man is a citizen of the state, and secondly, man is a member of a universal state that is a hierarchically higher community than the political realm and it is dictated by reason. Furthermore, the rules of these areas are not irrelevant to each other. On the one hand, men are subjected to the law of the State as citizens; on the other hand, men are subjected to the law of nature as rational beings. The law of the State should contain the nature of law. The law of nature provides a principle showing which law of the state it is necessary to obey and which is not. "It shows that the law of nature, can be appealed to as a justification for civic disobedience and getting rid of tyrannical rule" (Dyson 2005, 123).

St. Augustine represents one of the most important mediating steps between classical philosophy and medieval philosophy since he applied both Platonic philosophy and Stoicism in the Christian world (Coker 1938). Plato believed that there were two dimensions that were chained together within a hierarchical order. St. Augustine applies this hierarchical order to the Christianity in the favour of religious affairs. On the other hand, Stoic belief in the politics - which is artificial, and its law has to be compatible with the law of nature - still exists with the applying of religious understanding. In this case, the law of the State in that its origin comes from the sin, has to obey the law of nature that is divine (Augustine 1938).

At the beginning of the high medieval era, one can observe the early steps of social contract theory. In the eleventh and twelfth centuries, the right of the secular State to intervene in religious affairs was the main concern. “But the Church sought to resist the imperial claims on behalf of the Papacy to intervene in secular affairs, and to depose of an emperor who misgoverned, and here was the point where the contract made its entry” (Gough 1957, 29).

The term “Feudal vassal” imposes obligations on feudal lords and the king. When enmity occurred between the parties, the Church, if it supports feudal lords, maintains the view that when the king acts arbitrarily, the feudal contract between the lords and king has been diminished. The main purpose of Manegold, who was a monk in the late eleventh century, was justifying the rebellion of German princes to the Emperor of the Holy Roman Empire. During the Saxon rebellion, Manegold believed that feudal lords act as representatives of the people.

According to Manegold, if a ruler acts tyrannically, “any man who has sworn an oath of allegiance to him (as in the feudal contract) is thereby absolved from his oath, and the people are free to depose him” (Lesnoff 1990, 6). If a king violates the terms under which he was elected, which is tyrannical rule, the people are absolved since the ruler was the first to break his oath.

Thomas Aquinas believed that human nature was damaged by the fall, but the principle of nature still could be understood. The “fall” damaged only the capacity to understand the rational law of nature. Although God made men, and they still share God’s divine reason, natural law is a reflection of the divine reason of God and men can participate in it. In this position, the State is composed of its members and it is a unity of common good. To be valid, laws should be rational and thus valid laws are gathered from the natural law. In this way, Aquinas reflects both Aristotelian understanding of political nature and divine natural law supported by Augustine and the Church Fathers.

John of Paris lived in the fourteenth century, during the conflict between Philip IV and the Pope; he tried to place both spiritual power and secular power on different levels. Also, he realized that before the Christ also, there were true king’s duties established for the necessities of the civil life of human beings. Under the influence of Aristotle, all men must live together, and every community needs a ruler to conduct common good. For Gough, on the political thoughts of John of Paris, it is clear that the rule is not derived only from the law of nature, that man is by nature a civil or political animal. “Before the first king, men did not live naturally, nor like men, but like beasts without any rule” (Gough 1957, 39). It is the first appearance of the state of nature, however, it is highly vague in the thought of John of Paris.

Engelbert, who lived in the late fourteenth century, went one step further than John of Paris, implying that a pre-political phase exists. “Kingdoms are impelled by nature and reason, and under the experience of their natural wants citizens set the king up to rule and preserve the rest, and they bound themselves to obey him by a pact and bond of subjection” (Gough 1957, 39-40).

A century later, during the fifteenth-century, Nicholas of Cusa, in the *De Concordantia Catholica*, argues that “by nature all men are free, and the government arises solely from agreement and consent of the subjects” (Cusa 1938, 262). Nicholas took the ideas of Engelbert and John of Paris and turned them into the State as a voluntary act of men. In this manner, the State in the late medieval era was constituted by the law of God and the law of nature, which is the reason. Through the reason,

consent is submitted to the king. It is to secure common good, which occurred by the voluntary act of men to live together and to set up a ruler to maintain, that derives from the consent of the people.

In the early sixteenth century, Mario Salamonio constituted “original contract theory” which is not between ruler and people, but – for the first time – between individual citizens (Lesnoff 1990). All men are created by God; in the first instance there was no government and political organization. However, later men decided to institute kingdoms by the agreement of men that the implications of the contract are the law, which includes the king.

The concept of the social contract began to feature as a consequence of religious tension between Catholics and Protestants during the late sixteenth century. Especially in France religious civil war arose between 1562 and 1598. After the St. Bartholomew Massacre, which ended with thousands of Protestant lives lost, a number of Protestant thinkers abandoned the policy of negotiating with the Catholic authorities and instead began armed resistance. Beza claimed that “royal power is derived from a grant by the people that is made on certain conditions” (Sommerville 2011, 579). If the king failed, the power would revert to the people.

*Vindiciae Contra Tyrannos* is a Huguenot writing who were a Protestant family during the French wars of religion. It was written by Junius Brutus, which is a pseudonymous. *Vindiciae Contra Tyrannos* suggests that two pacts or contracts have been made. The first one, on one side, involves God and on the other are the ruler and people. The first contract is between God and the king that reflects a feudal oath. The second one includes reciprocity of right and obligation between the king and the people.

Johannes Althusius is known to be the first social contract theoretician. Althusius was the first since he regarded the notion of contract as a fundamental juridical basis. Furthermore, this juridical basis not only occurred for the State. Juridical basis is the basis of all institutions. As is a matter of fact that Althusius divides institutions into five categories: the family, the fellowship, the local community, the province and the State.



All these classes are contractual unions of smaller associations. “So that in the wider associations the contracting parties are not individuals but associations themselves” (Gough 1959, 75).

Johannes Althusius’ major motive was to justify the Netherlands’ Protestant revolt against the Catholic king of Spain. Thus, in the theory of Althusius, provinces have extensive authorities such as imposing taxes and proclaiming laws. In this manner, the Netherlands is the province mentioned by Althusius, and she revolts against the governor who is the Catholic king of Spain discharging his duty. The State is constituted by the provinces, and they have a right to resist as well since the State is established by the consent of the provinces.

### **3.2. THE SOCIAL CONTRACT THEORY**

#### **3.2.1. Hobbes**

When Calvinists and other rebels had shown up all over Europe, Thomas Hobbes proposed a theory that interrupts the tradition of restricting the State’s authority. He was highly influenced by civil war, and he blamed the Calvinist thought of taming the king for the misery of England during the seventeenth century. Thus, Hobbes depicted the social contract as unbreakable, and he constituted a powerful State. “In this way Hobbes destroys the whole foundation on which previous writers had rested the theory of the contract of government as a means of limiting royal power and justifying popular revolt” (Gough 1957, 108).

For Hobbes (1996), men are equal in their capability in the state of nature, and they enjoy total freedom. There is nothing to limit total freedom in this state. Besides, the most important equality in the state of nature is the equal ability to kill each other. Every man is capable of hurting another one in an equal sense. In this state, self-

preservation becomes the main concern for the individual. “Self-preservation is most important because fear is the most powerful passion” (Berns 1972, 373). On the other side, equality of ability led men to compete with each other since every man can acquire whatever he desires. Every man has a right to everything, and everything that he does not as part of his preservation can be a threat to his own self-preservation. No man is secure in such a state.

Fear of death, desire for comfort, and hope of obtaining it through their industry incline men to peace. “Reason, working along with these passions of fear, desire and hope suggests rules for peaceful living together” (Berns 1972, 375). Hence, reason tells people to lay down their power to the constructed sovereign that maintains security. There must be some coercive and indispensable power that can force contractors equally to perform their covenants.

Once the State is constituted, his subjects are bound to obey him in every circumstance. On this point, Hobbes is accused of being authoritarian but there is a point that is misunderstood. For Hobbes, subjects are bound to obey but, on the other side, subjects are “the author of sovereign action” (Hobbes 1996, 124). In this manner, the State becomes a tool to provide security and thus actions - namely punishment - are legitimized since the only punishment comes from the threat of insecurity, which is the state, men do not desire to turn back to.

In other words, the sovereign is the only one who can explain the natural law. In the state of nature, since every man has his own interpretation of natural right, there is no concept of justice or injustice. Transferring power to the sovereign also constitutes an understanding of justice to the State. However, on what grounds can the State interpret this natural right? The ground to interpret is constituted by the contract, which means the interpretation of the natural law is also confirmed by the covenants.

If interpreting natural law is an understanding of justice, then justice is an equilibrium between security and desires. However, it is impossible to compare personal levels of security and desires; it remains vague.

### **3.2.2. Locke**

The most important critique addressing Hobbes was developed by the English theorist, John Locke. In the Hobbesian state of nature, man enjoys complete freedom and equality of freedom led to the insecure state of the pre-political phase. Self-preservation pushes people to make a contract and to give away their authority to the ruler. On the other side, Locke argues that the fear does not occur in the state of nature. For Locke, man does not enjoy total freedom since there is the law of nature to organize it. The law of nature constrains man's equal liberty. Locke says that the state of nature has a law of nature to govern it, "which obliges everyone; and reason, which is that law, teaches all mankind whose will consult it, that being all equal and independent, no one ought to harm another in his life, health, liberty or possessions" (1990, 86).

If the law of nature could have been exercised during the state of nature, which means peaceful co-existence, the State apparatus is unnecessary to construct. For Locke, even if the peaceful co-existence is maintained by the law of nature, the necessity to enforce this law of nature stands still. People would have agreed the joint contract since they need the highly centralized enforcing power of the law of nature.

Furthermore, in the state of nature, every man can exercise the law of nature, and thus, a centralized enforcing power of the law of nature is necessary. Meaning that everyone can exercise the law of nature, as there can be a dispute between individuals that cannot be solved without the existence of a neutral party guided by the law of nature. Accordingly, individuals voluntarily give up their authority to the State so that only it can judge and punish according to the law of nature.

Locke identifies political power in this way: "Political power I take to be a right of making laws with penalties of death, and consequently all less penalties, for the regulating and preserving of property, and of employing the force of the community in the execution of such laws" (1990, 85).

There are two points that should be addressed in understanding the political power of Locke. The first political power could be exercised only by the State since it has the right to make laws in order to maintain exercising the law of nature. Secondly, the State cannot act free from the contract since its reason relies on enforcing natural laws, one of which is the protection of private property. In this manner, Locke revives the social contract theory in the way of its traditional role that limits the government.

The law of nature allows people in the state of nature to possess property. However, if everyone is equal and if everyone has a right to have private property, on what grounds does the law of nature decide who can have the property? Consent is not necessary in this situation since it is just a drawback. “If such consent as that were necessary, man could have starved, notwithstanding the plenty that God had given him” (Locke 1990, 91). According to Locke, one can obtain the property only if he is going to improve it for the benefit of all.

### **3.2.3. Rousseau**

Jean Jacques Rousseau was an admirer of the ancients. As a consequence of this admiration, some of the critics of the concept of general will asserted the impossibility of establishing general will except in small cities such as Sparta. But Rousseau reminds us of something forgotten about the ancients. “Old republics of the ancients provided peace and stability, yet their polis was not built on self-preservation as in Hobbes, or on private property as in Locke, but on the virtue of good citizenship” (Bloom 1972, 534). On the other hand, he was an admirer but on the other side, he rejects the ancient political thought underlying nature. With this dissent, Rousseau suggests that human nature is not political but he recognizes a simple imperfect primitive man. Rousseau believes in the ancient practice of politics but not in its political thought.

Rousseau begins to write *The Social Contract* in this way: “man is born free; and everywhere he is in chains. How did this change come about? What makes it

legitimate?” (2007, 25). Rousseau refers to a typical change in human nature through the invention of civil society. If civil society is not natural, that is, total freedom, then we must go to a time before civil society to find how man was naturally.

Man enjoys total freedom in the state of nature. He is isolated from others and unless there is a state of scarcity he does not fight with others. However, men are rational beings and they make contact with each other. Reason depends upon speech. Reason is the characteristic of humans that differs from animals. “Man is not a being determined by his instincts; he can choose, accept and reject” (Bloom 1972, 537). He develops interaction with other people and they establish the institution of the family. Everyone is equal, and nobody creates restrictions upon the other. With reason, he can understand the advantages in getting help from others. Man becomes softer, and his needs are greater. “The first experience of cooperation or common ends brings to consciousness what obligation or morality might be” (Bloom 1972, 538).

Experiencing cooperation with others establishes the source of private property that is the foundation of inequality. Then, the law of nature cannot prevent the foundation of the inequality. Their own needs are real, but the self-love (*amour-propre*) made property as real and natural. “There is no judge between different claims, and there is no natural law to resolve since the situation is not natural, it is man-made” (Rousseau 2010, 538).

By different skills and talents some men are enabled to increase their possessions and become rich while others remain poor. The rich man realizes the threat to his possessions eventually, and he sees the possibility of guaranteeing his right to property - since it is not natural, and there is no pattern to acquire the private property - by the consent of other men though maintaining peace by a mutual pact to protect each and all against aggression.

Rousseau depicts the passing through the state of nature to government with arguments both from Locke and Hobbes. For both Hobbes and Rousseau, men living under the condition of the state of nature are hostile to each other which is not natural in

Rousseau's account. Both for Locke and Rousseau, State and civil society were constituted to legitimate and secure the property and possessions, which are again not natural in Rousseau's account. For Rousseau both social contract theorists are wrong in assuming that these situations are natural to man.

There is a sharp contrast between the natural man and political man contrary to the predecessors of Rousseau. Therefore, Rousseau submits this change in a positive account. The political man must be deprived of his natural power and given others, "which are foreign to him and which he cannot use without the help of others"; politics reaches a peak of perfection when natural powers are completely dead and extinguished (Riley 1982, 102).

This criticism of nature is Rousseau's critique of liberalism and it is also a governing principle that he called General Will. While suggesting individualism, liberalism leaves no place for community. On the contrary, political man can achieve only by entirely surrendering to the State. "A perfectly socialized state could elevate men, and turn them from limited animals into moral and intelligent beings" (Riley 1982, 105).

Thus, Rousseau attempted to unify the political theory of Social Contract relying on individual consent and the ancient politics founded on common good. "He begins with the individualist assumptions of the school of natural law, but his conclusion is collectivist" (Gough 1957, 172). Then, general will becomes a unifying tool of individualism and collectivism in which we will see this effort in Rawlsian political theory that critiques and addresses the lack of social cooperation of Utilitarianism.

### **3.3. SOCIAL CONTRACT THEORY IN DECLINE AND MEASURABILITY**

In the nineteenth century, the social contract theory started to lose its significant power. In England, after the Bill of Rights in 1689, constitutional monarchy had been established, and the monarch's power over possessions was diminished. Natural law tradition suggested the right of resistance of the people under the tyrannical rule of a king but lost ground in that it did not exist in the nineteenth century.

With these significant changes, in the nineteenth century, the social contract was no important way to understand the nature of the State and authority. The social contract theory is a theory of understanding the foundation of the State through implying the rights and obligations between the State and the citizens. The social contract theory favours the liberal State and after it was constituted the role of the social contract theory was in decline. Once the liberal State was instituted, there was no need to discuss the questions on the foundation of the State and on the rights of people that were explained through the constitution.

Since St. Augustine, consent is the basic notion to explain the body politic. The notion of will occurred as being capable of giving consent to the State. For Hobbes, Locke and Rousseau, consent is the key to constituting the State. For Hobbes, men give up their power to interpret natural law to the Leviathan for their security; For Locke, men constitute the State to guarantee their natural rights such as private property. For Rousseau, political man gives consent to the general will, which includes non-consent based practices of collectivism, to implement common good above the private will.

In the nineteenth century, the strong link between the "consent" and the "will" was in decline. Hegel can be counted as one of the most important breaks between consent and the will. For Hegel, the concept of consent cannot be a basis for the foundation of the State otherwise it would be optional to participate in the State. Also, the State is placed on higher ground than citizens' mere individual interests to exercise

their rights. “If we accept the right based on the will of the individual we undermine all obligations because a person will have the right to quit the contract whenever he dissents from it” (Beiser 2011, 134).

During the nineteenth century, the notion of consent that is the foundation stone of any contractarian theory was under attack. Besides Hegel in Prussia, Jeremy Bentham and John Stuart Mill developed a theory that finds the foundation of the state on the base of utility. With their focus, they insist on Hume’s thought on justifying social institutions by their necessity.

As with Rousseau, Hume believed that the family was the first established social institution. With a family, men would understand the necessity of society and its possible advantages. However, self-love is restricted by his relatives and friends. Also, there is scarcity of the external goods. Goods do not exist in sufficient quantity to meet the requirements of everyone’s desires. Scarcity and self-love create instability of the goods and the viability to create civil society. It is, then, important to constitute the State in reaching the stability, which is one of the equilibrium models. For classical social contract theories, the reasoning behind obeying the government and law maintains that men have promised to obey. As Hobbes the third law of the nature suggests “man perform their covenant made” (1996, 112). On the other hand, for Hume this answer is empty, and consent is not the answer in obeying the law. The Humean answer to keeping our promise is that there is a necessity to hold our promises otherwise we cannot gather any help since it would be only one-sided. “It would be absurd to expect help from others without men’s help in return” (Hill 1972, 524). In this manner, the foundation of the society is a necessity and reciprocity.

Between the late eighteenth and the early nineteenth century, the United Kingdom saw a series of social transformations to a position giving rise to utilitarian thought. The United Kingdom had colonies all over the world, such as in Africa and India. Sir Leslie Stephen (1990) claims that country gentlemen were incompetent in regulating commercial affairs. “The law of landed property was immediate to country men and the law had been developed in medieval times and bore in all its details the



marks of the long series of struggles between kings and parliaments” (Stephen 1968, 22).

On the other side, Jeremy Bentham accused social contract theory of being a theory of fiction. Bentham believed that the “original contract is a fiction, which may have been useful once, but the age of fiction is now over” (Gough 1957, 190). Bentham’s criticism of social contract theory and Sir Leslie Stephen’s analysis of British politics appear parallel to each other. The social contract theory with the understanding of consent offers an understanding of the law. Therefore, this law, mostly understood in the United Kingdom in the way of private property, is nothing but a justification to secure private property that characterized by the struggle between the king and the parliament. The law offered by the social contract is only a framework but inside it is absent. With the increase of commercial affairs in the United Kingdom, the understanding of the law becomes more technical than theoretical. As a consequence of this development, laws need technical specialization rather than a consent-based moral indication of the social contract theory.

If we accept the nineteenth century as a time of beginning the technical understanding of the law, utilitarianism seems easy to understand in its historical context. Consent as a tool of understanding State and civil society becomes vague and political theory needs more rigid terms to understand the foundation of the State. In this position, utility becomes a rigid measure to both understand the origin of the State and to calculate law in their necessity.

Between the nineteenth century and the second half of the twentieth century, due to the reasons we have shown, there is no sign of social contract theory. At this point, the term social contract theory is relegated to the particular age within the sixteenth and late eighteenth centuries. The classical social contract theory refers to a theory of a specific age that is the milestone of the foundation of Liberalism.

The Social Contract Tradition at first appears as an oath in the medieval age regulating rights and duties between the king and the people. The primitive version of

the social contract was mainly the tool of medieval natural law, offering justification for resistance to the king due to his failure in some area. With the French Religious War, the effort of reconciling the Church and the Protestants failed and the first social contract theory by Johannes Althusius emerged. The seventeenth and eighteenth century was the heyday of the social contract tradition owed to Hobbes, Locke and Rousseau. With the Bill of Rights in 1689, in Locke's time, parliament gained triumph over the throne, and secured the possessions acquired.

Liberalism was on the way to being established in these times, and with the French Revolution the political rights of Liberalism were established. As a consequence, the heyday of the social contract theory was in the centuries of the foundation of Liberalism. This process mainly worked on the notion of consent and during the nineteenth century consent was insufficient to explain standards for the institutions. Until the second half of the twentieth century, social contract tradition stood in this historical position and theory did not use the formulation of social contract tradition. However, John Rawls (1975) revived this tradition and it became popular again.

For the theory of games, both Hobbes and Rousseau offer equilibrium. Hobbes offers equilibrium between safety and desires. On the other side, general will is a medium step between social cooperation and private will. However, these equilibriums are not specific and it is impossible to compare personal desires. Utilitarianism offers a tool to explain the State appropriately with interpersonal comparison of utility.

John Rawls (1975) tries to show that social contract tradition is higher than utilitarianism. However, the contemporary social contract theory is highly influenced by utilitarianism. The contemporary social contract theory uses the concept of utility, and it does not offer another method of interpersonal comparison. They focus on distributive justice and in this way the only interpersonal utility is income and wealth.

Gauthier (1986) regards rational choice as a prisoner's dilemma. The problem of rational choice is that the one seeks to maximize his utility until the constraints permit it. However, "rational choice denies a precise measure of preference and utility and

identifies rationality with the maximization of utility” (Gauthier 1986, 22). It shows that Gauthier has a rational choice theory, which goes beyond the measurability and differs from classical social contract theory.

Buchanan (1975), on the other side, clearly explains that a constitutional contract is a game theory and also it has two Nash equilibriums for the state of nature. As with Skyrms and Binmore, he tries to explain how to choose cooperation while exercising rationality, concluding with the strict Nash equilibrium, which is defection for both.

In this manner, distributive justice enables us to calculate utility. This discipline is both moral theory and economics since it focuses on distribution. The contemporary social contract’s main purpose is to distribute goods and maintain social cooperation. On the other side, Thomas Nagel (1991) and Tim Scanlon (1998) are the other contemporary contractarian thinkers. They focus on the “reasonable” (categorical imperative) conception of Rawlsian justice in which there is no concept of reasonable after constituting the principle of justice. We will discuss this in the next chapter. Scanlon also focuses on mutual recognition between individuals rather than the distribution of goods.

While the classical social contract theory is impossible to calculate since utilitarianism created this method, it is impossible to apply game theory to classical social contract theory. On the other side, contemporary social contract theory focusing on distributive justice enables us to compare social cooperation conceptions. Furthermore, purpose of contemporary social contract theory is to constitute social cooperation while the classical social contract theory tries to justify rights and duties between the individual and the State. Thus, due to calculating utility, we can compare social cooperation understanding of contemporary social contract and evolutionary game theory. In the next chapter, we will talk about contemporary social contract theories.

## **CHAPTER IV**

### **CONTEMPORARY SOCIAL CONTRACT**

#### **4. RAWLS**

##### **4.1.1. Subject of Justice**

For Rawls (1999a) social institutions possess many virtues, but justice is the primary one. He says that, “Justice is the first virtue of social institutions... Laws and institutions no matter how efficient and well-arranged must be reformed or abolished if they are unjust” (1999a, 3). This means that the notion of justice cannot be underestimated due to other purposes of social institutions such as efficiency. Also, in a just society equal citizenship is maintained. Every citizen is free and equal and these rights are indispensable since just society preserves the liberties of equal citizenship. Thus, the concept of equal citizenship secured by justice is not subjected to political bargaining or to the calculus of social interests (Rawls 1999a, 4).

Justice is a virtue not only for social institutions but also for individual conduct. Rawls’ theory of justice (1999a, 1993 and 2001) recognizes this difference and holds its attention only on social institutions. Rawls does not try to determine individual accounts of justice. In the *Justice as Fairness: Political not Metaphysical* he attempts to constitute a “workable conception of justice” (1985, 225). Philosophy focuses on individualistic accounts of justice, and it does not involve the principle of toleration that excludes individual practice of the justice. No moral theory can provide a basis for understanding justice that is recognized publicly. Rawls tries to maintain a justice theory independent of controversial philosophical and religious doctrine (1985, 223). The notion of workable means that there are publicly recognized rules in this sense.

Rawls' account is limited to the influence that "individuals can have on the design of the basic structure and to relations among individuals when they are mediated by those institutions" (Mandle 2009, 12). Society, then, is not only constituted for individuals to achieve their good, but it is also regulated by the concept of justice.

Thus, the theory of justice does not determine any good for the individual and it also combines with individual interest in social institutions. The subject of the justice is social institutions, which act as the legal protection of freedom and equality, and private property. Social institutions are the outcome of duties, obligations and expectations of citizens based on what they can expect from life (Rawls 2001).

The Rawlsian understanding of justice is a theory of justice that attempts to maintain a unified system of social cooperation. On the one hand, society has certain rules between individuals in terms of equal citizenship; on the other hand, it establishes a social cooperation advancing the understanding of good of those who participate in it. But how can we establish this kind of society both imposing certain rules between the citizens and establishing the social cooperation to secure citizens' understanding of good? In other words, how do we achieve principle of justice and how do we accept them and how can we be sure that citizens would obey the principles?

In this position, Rawls (1999a) suggests the theory of social contract. He claims that, "we are not to think of the original contract as one to enter a particular society or to set up a particular form of government. Rather, the guiding idea is that the principles of justice for the basic structure of society are the object of the original agreement" (Rawls 2001, 10). The classical social contract theory offers an explanation of the concept of society and State. Hence, Rawls changes the direction of social contract tradition, and he puts emphasis on establishing the basic structure of society since the subjects of the justice are the basic institutions of the society. He seeks to constitute principles of society so that every free person in society would reasonably agree on the principles of justice. Men try to establish an understanding of social cooperation with the contract, which is not an individualistic account of justice.

An idea of society constitutes the fair system of social cooperation between free and equal persons. This emphasis led to the question of how the terms of fair social cooperation are specified (Rawls 1999a, 14). Men establish the fundamental terms of society in the original position of equality. “This is a state in which men are to decide in advance how they are regulated in their claims against one another and what is to be the foundation of the charter of their society” (Rawls 1999a, 10). The original position does not refer to the historical state; it is a state of hypothetical assumptions. The original position reflects a concept of the state of nature that the classical contract theory offered (Rawls 1999a).

It means that when the idea of rationality is fully exercised, which is the utilitarian utility, it sacrifices the least advantaged group in the society. The laws constituted by the idea of what is reasonable can interrupt this situation, due to enacting reasonably established principles there is a veil of ignorance that forbids any knowledge of the individual on the positioning within. It is the main constraint in the original position. In Rawlsian theory, the two principles of the justice and, more importantly, the difference principle are reasonably agreed law; thus for Rawls, it overcomes the problem of sacrificing.

Contrary to the traditional notion of the state of nature, the original position is a bargaining position and the principles of justice are the result of a bargaining process. In the classical social contract theory, the state of nature does not offer a bargaining process since it regards every equal man as separate from each other, and there is no party to bargain. Classics have formed the society and the State through assigning consent based on morality. The Rawlsian state of nature does not offer consent in the classical sense but a bargaining model for each free and rational individual.<sup>13</sup>

Rawls suggests that the original position models two things:

First, it models what we regard as fair conditions under which the representatives of citizens, viewed solely as free and equal persons, are to agree to the fair terms of cooperation whereby the basic structure is to be regulated.

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<sup>13</sup> On the other side, theory of games is a bargaining position.

Second, it models what we regard as acceptable restrictions on the reasons on the basis of which the parties, situated in fair conditions, may properly put forward certain principles of political justice and reject others (2001, 17).

People are equal in all aspects since they possess two moral powers. The first moral power is that the person has the capacity to sense the concept of justice. People can achieve and maintain the fair terms of social cooperation in society. “It is the capacity to understand and to apply through the principles of justice that specify the fair terms of social cooperation” (Rawls 1985, 233). The second moral power is the capability of reaching the conception of good. An individual can have, revise and decide what the concept of good is for himself based on his/her own values. Furthermore, it is moral power to track his conception of good, and to achieve the good determined by his own actions.

If one has the right to choose and pursue his own understanding of good, this can produce a conflict between the individual in the society since these different concepts of good can be contrary to others’ perceptions of good. Rawls believes that society is a fair system of cooperation, but he also admits that “it is typically marked by conflict as well as an identity of interest” in which the understanding of society is shaped by Hume. Having both conflict and opportunity requires some restrictions on rational citizens. These restrictions bring the second modelling of the original position stated above. Secondly, it implies some restrictions on the reason to achieve fair terms of social cooperation and to establish principles of justice. Everyone is free and equal, and can have moral power, which establishes his own understanding of good. To maintain this equality, and to achieve fair terms of social cooperation, it is necessary to exercise restrictions on an individual’s conception of good “since only a set of principles that protect everyone’s fundamental interests will be acceptable to everyone” (Mandle 2009, 14). To ensure that everyone shows acceptance of the terms of fair social cooperation, Rawls offers a veil of ignorance.

#### **4.1.2. Justification of the Principles of Justice and Defining the Least Advantaged Group**

The veil of ignorance is a restriction on parties in the original position. If everyone has his/her own conception of good, due to their moral power, and they are rational people to pursue it, it causes a conflict in the society. A rich man and a poor man's decision would not be the same in the way of establishing the principles of justice. But parties constitute principles of justice behind the veil of ignorance. Parties are excluded to know their place in society. "The parties are not allowed to know their social position since in this way a reasonable principle, which everyone would agree on, can be reached" (Rawls 1985, 236).

Rawls maintains that "the original position models a basic feature of Kantian constructivism" (Rawls 1985, 237). Kantian constructivism offers a distinction between the rational and the reasonable. In the original position, the parties do not choose the rational principle of justice, which is the principle of utility, but they choose principles that everyone would agree on. Rawls' efforts are to create a model and to justify the principles of justice that can be reasonably agreed on. With the veil of ignorance, parties can constitute and rely on principles of justice and basic institutions, which reasonably agree. Justice as fairness provides an understanding of justice that everyone could agree on with the restriction of knowledge through the veil of ignorance. Fairness imposes an understanding of reasonably agreed principles of justice. The reasonable is derived from a conception of moral persons as free and equal. In this manner "the constraints of the original position are no longer external" (Rawls 1999a, 319). In theory of games, the original position or convention model is externally imposed upon the players to reach cooperation. On the other side, Rawls solves this problem with morality since one has moral power to sense the concept of justice.

Equal and rational citizens behind the veil of ignorance conclude with these two principles of justice:



- 1- Each person has the same indefeasible claim to a fully adequate scheme of equal basic liberties, which scheme is compatible with the same scheme of liberties for all.
- 2- Social and economic inequalities are to satisfy two conditions: first, they are to be attached to offices and positions open to all under conditions of fair equality of opportunity; and second, they are to be to the greatest benefit of the least-advantaged members of society (difference principle) (Rawls 2001,42).

The first principle of justice is the principle of greatest equal liberty, and it suggests that everyone has an equal right to liberties. This principle prohibits the unequal share of liberties and rights. The second principle of justice, equality of opportunity, ensures that positions are open to all. Lastly, the difference principle, which is the second part of the second principle, suggests that social and economic inequalities should improve the least advantaged group of the society - since no one knows in the original position whom would be least advantaged, it is reasonable to improve the economic prospects of the least advantaged. Furthermore, in *A Theory of Justice*, Rawls depicts the difference principle that only allows inequalities that are beneficial for all. Inequalities are “expected to be to everyone’s advantage.” (2001, 53). In the first position of the difference principle, it does not stress any specific group within society. However, it does not offer any theoretical change since Rawls’ major problem is to overcome the sacrificing of the least advantaged group. The latest version of the difference principle is the specified version of the first. “The basic structure should allow inequalities so long as these improve everyone’s situation, including that of the least advantaged.” (Rawls 1999a, 262). For our position, inequalities should be arranged for everyone’s situation, including the most advantaged group in society, since in the theory of games, the most advantaged have a loss on the potential gain in the cooperation.

Rawls offers these principles in lexical order in which every step is possible only if the earlier principle is ensured. “The first principle is prior to the second; also, in the second principle fair equality of opportunity is prior to the difference principle” (Rawls 1975, 262). Rawls maintains this order to prevent the sacrifice of the least advantaged

group. Without the principle of the greatest equality of liberty, and without the principle of equality of opportunity, the difference principle has no ground to be exercised, and distributive justice would sacrifice the least advantaged for the other sections of the society. “Liberty can be restricted only for the sake of the liberty and not for any other form of social or economic advantage” (Rawls 1999a, 43). Also, this lexical order comes from the original position since sacrificing the least advantaged is not reasonable; it is rational for the parties without the veil of ignorance.

After securing the first principle, Rawls states that, “All social values are to be distributed equally unless an unequal distribution of any, or all, of these values is to everyone’s advantage” (Rawls 1999a, 54). Subjects of the justice are the basic structures of society. In order to exercise a claim made in the original position behind the veil of ignorance, these structures distribute goods. These are “desirable for everyone’s account” (Rawls 1999a, 80). Primary goods are rights and liberties, income and wealth, self-respect and opportunities. These are the goods both as an instrument to individual conception of the good whatever it is and under the direct control of the basic structure. Rawls admits that there are other types of goods such as health, but even if the basic structure has an influence they are not direct control under the basic structure.

Therefore, primary goods are reflected by the principles of justice. Rights and liberties are exercised by the first principle of the greatest equal liberty. It shows that only on behalf of rights and liberties can they be restricted, and priority of the first principle banned the restriction due to the economic and social advantages.

The first part of the second principle suggests equal opportunity for citizens to reach their conception of good. Opportunities, which are other primary goods, reflect the principle of equal opportunity. Moreover, self-respect is also included in this principle. The principle of equal opportunity guarantees a “social basis of self-respect for all citizens without regard to their natural abilities” (Freeman 2007, 94). The difference principle addresses the income and wealth of the primary goods, and the difference principle relies on two other principles existing to exercise principles of justice that try

to protect the least advantaged group, and then who can we define as the least advantaged group.

In *A Kantian Conception of Equality* Rawls describes the least advantaged group using three contingencies: “Whose family and class origin are more disadvantaged than others, whose natural endowments have permitted them to fare less well, and whose fortune and luck have been relatively less favourable” (1999c, 258). This means that the least advantaged are placed in this position due to their luck, ability and circumstances based on family and class.

Schaller (1998) argues that the least advantaged group is explained on the basis of natural endowments such as educational attainment. So, Schaller refutes the explanation of the least advantaged in terms of primary goods. “The difference principle is concerned only with lifetime expectations, not with annual income.” (Schaller 1998, 373).

Weatherford (1983) does not refute a primary goods based account of the least advantaged, but he raises a deserving problem. Within the three contingencies, Weatherford eliminates the class and family factor of the least advantaged since the two principles of justice and the principle of equal opportunity can offer the chance to change one’s class and social position. With the two contingencies, he supposes that the least advantaged are deserved poor and the difference principle “will help only those who are undeservedly unsuccessful” (Weatherford 1983, 69). If the least advantaged group were the deserved poor, the difference principle would not protect them since the free-riders problem will have appeared.

On the other side, in *A Kantian Conception of Equality* Rawls admits that there are difficulties in determining the least advantaged due to primary goods, but his motive is to create an index providing a basis for interpersonal comparisons for the purpose of justice. “It is not a measure of individuals’ overall satisfaction or dissatisfaction” (1999c, 261). Rawls, therefore, distinguishes the rate of satisfaction and the goods. On the other side, interpersonal comparisons of income and wealth, allow an individual to choose his

conception of the good. “It allows for individuality in the form of a plurality of conceptions of the good within the limits of justice.” (Rawls 1999d, 385).

In this manner, defining the least advantaged based on primary goods is more plausible than a natural endowments explanation. Due to the first principle and priority of the first principle on the second principle it is suggested that in the primary goods, there can be no inequality in the goods of rights and liberty. The inequalities can be placed in the second principle, which permits inequalities only if they are to everyone’s advantage. On the other side, with the establishing of the first principle, the principle of equality of opportunity is initially enjoyed since every citizen is free and equal. However, with the difference principle, the only inequality that can be permitted lies in the interpersonal primary goods of income and wealth (Rawls 2001).

The concept of the least advantaged, then, is a social placement of having the lowest amount of income and wealth. Rawls desires a social cooperation including the least advantaged group of society; thus, the second principle implies that inequalities in wealth and income can be allowed only if it is of advantage to the whole society including the least advantaged.

The difference principle becomes a principle of allowing the inequalities of the economic situation only if everyone - especially the least advantaged - benefits more than in a position without inequalities. In this point, we have a counter with the principle of efficiency. Rawls admits, “a political conception of justice must take into account the requirements of social organization and economic efficiency” (Rawls 2001, 123). It is clear that in Rawls’ account the principle of efficiency can only be maintained by the economic inequalities. Rawls says that “existing inequalities must contribute effectively to the benefit of the least-advantaged” and the most advantaged; otherwise, the inequalities are not permissible (Rawls 2001, 64).

#### **4.1.3. Rawlsian Critics of Utilitarianism**

Rawls proposes two essential concepts of ethics that are the right and the good. Constituting an ethical theory is the connection of these two main concepts. According to Rawls, “the simplest way to relating them is taken by teleological theories” (1999a, 21). These theories are good-primacy theories, and the understanding of good is established free from the understanding of the right. However, the concept of good and right should be related with each other, and teleological theories solve this problem by relating the right by means of maximizing the good. Thus, the explanation of the right is good-dependent and it is right to pursue the good. Teleological theories show that the understanding of right is not a constraint of good since it is the satisfaction of the rational desires.

Rawls’ first critique of utilitarianism is that it is a teleological theory. Utilitarianism favours the pursuing of individual understanding of good and people would obey the law since it relies on their rational good. A society and its institutions are established to acquire the sum of net utility for each member of society. Utilitarianism and the teleological theories “embody the idea of rationality” (Rawls 1999a, 22).

Rawls combines these two concepts of ethics in the principles of justice. The first principle is the principle of greatest equality that comprehends the right, and the second principle is both the difference principle and the principle of equality of opportunity, which embodies the good. The priority of the first principle over the second maintains that without exercising the principle of the greatest equality, the second principle cannot be imposed. Hence, Rawls ensures that the principle of utility cannot be chosen since it requires the conception of right that is the satisfaction of desires. The Rawlsian concept of justice does not offer the right based on good.

The second critique of utilitarianism is that there is a sacrificing of some group of society to reach a total sum of utility for the society. The greatest number of greatest utility, for Rawls, denies the right of the least advantaged group to primary goods, and it

sacrifices the least advantaged group. This means that the least advantaged group has a loss due to increasing the total sum of net utility of the society. “Utilitarianism imposes no principled limit on the extent to which reasoning may be employed in making social decisions” (Scheffler 2003, 429).

However, if the concept of reasonable means that everyone would agree and if we interpret the primary goods in which only in wealth and income there can be inequality, it means that a reasonable conception of contract theory should be beneficial for all on the basis of wealth and income. Rawls describes the benefit for all in this way: “A political conception of justice must take into account the requirements of social organization and economic efficiency” (Rawls 2001, 123). Benefit for all should maintain the principle of efficiency that is indispensable. Thus, if we start from an equal distribution, due to the difference principle, basic institutions would allow the inequalities. However, these inequalities express the benefit for those who are under the inequalities. Furthermore, these inequalities would increase the share of other social classes in society. These inequalities are allowed until the least advantaged have started to lose their income and wealth. The principle of reciprocity, thus, provides gain for both parties. In this manner, “the principle of reciprocity... selects a focal point between the claims of efficiency and equality” (Rawls 2001, 123).

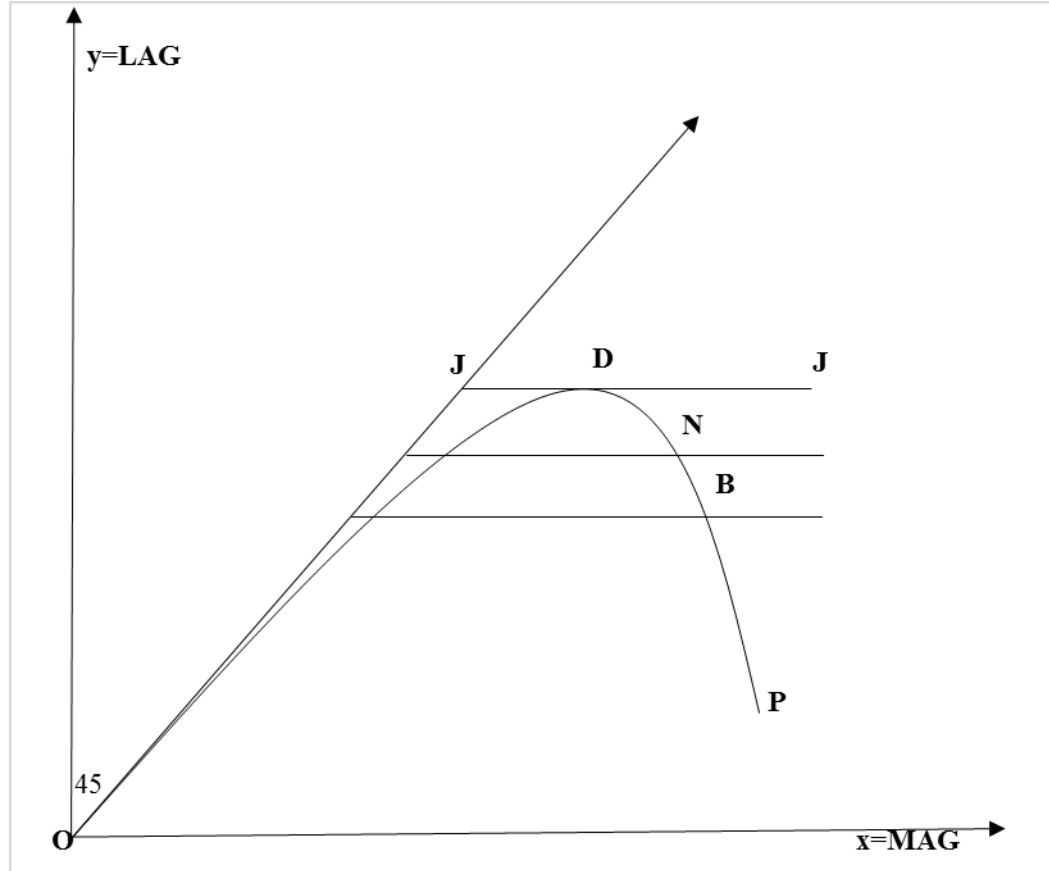


Figure 4: Comparison of Difference Principle and Other Possible Distributions in the Original Position (Rawls 2001, 62).

A Rawlsian understanding of justice and production is shown in Figure 4. This figure implies that there are two productive classes, namely the least advantaged and the most advantaged. It shows the index of primary goods in the difference principles. It is based on primary goods, but it shows only income and wealth since it is the only inequality allowed by the two principles of justice. The X axis shows the most advantaged share, and the Y axis shows the least advantaged share in the production. The 45-degree line is the equal distribution. The efficiency is shown by the OP curve, which rises up until point D and then starts to fall radically. Point D is the maximum point for efficiency in the OP curve, and the JJ line cuts through the higher point in the 45-degree line. It is the highest line cutting through the 45-degree equal distribution line. The JJ line shows the maximum line, which was the balance between equality and

efficiency. Point D is the highest point that can be chosen by the principle of reciprocity. Point B is the Bentham point at which the sum of individual utilities is maximized. As shown in the table, point B sacrifices the least advantaged group since it favours the pure-utility, which was the sum of individual utility.

This table shows that, as a result of the difference principle, which is reasonable for all in the original position, the most advantaged give up some of their shares to prevent the sacrificing of the least advantaged. Compared to Benthamite distribution the most advantaged group's share is reduced in the difference principle's distribution. They accept the loss of gains since the principle of justice was maintained behind the veil of ignorance since it is the maximin strategy. All players choose to increase the potential of the least advantaged share. In this manner, it is important to ask if Rawlsian justice favours the loss of the most advantaged group. This can happen only if the social cooperation is a bargaining game.

On the other side, in Figure 4 the OP curve of efficiency suggests that it is the most efficient point, even more efficient than the utilitarian principle of utility. The notion of efficiency means that the higher point of share - income and wealth - is maintained for both the least advantaged and the most advantaged group. With two interpretation of Figure 4, the difference principle becomes double-headed. On the one hand, the difference principle would cut off the share of the most advantaged due to overcoming sacrificing the least advantaged group in society. On the other hand, the difference principle is the most efficient point, which means that the share of the two groups is maximized.



Table 3: Possible Distributions Based on Difference Principle<sup>14</sup>

	D <sub>equal</sub>	D <sub>bentham</sub>	D <sub>1</sub>	D <sub>2</sub>
The most advantaged (Payoffs)	10	18	15	20
The least advantaged (Payoffs)	10	6	12	13

D<sub>1</sub> shows the first view, that difference principle implies the loss of income and wealth of the most advantaged compared to Benthamite distribution, and D<sub>2</sub> shows that the interpretation of the difference principle is that there is a beneficial position for all compared to Benthamite distribution. The difference principle suggests that only inequalities that are beneficial for the whole society are permitted. This position is not beneficial for the most advantaged group on the basis of income and wealth. Thus, D<sub>1</sub> is not exercisable for the difference principle since it would not allow sacrificing the most advantaged group. The principle of reciprocity would not allow D<sub>1</sub> as it proves one side's loss. D<sub>2</sub>, on the other side, is favoured by the difference principle since the whole society would benefit from the inequalities of income and wealth compared to all other distributions. This is the inequality in which everybody can develop their economic status.

In this manner, the efficiency means that everyone would be better off than in a position without the difference principle in Rawlsian justice. Both parties should gain more than the initial position of their income and wealth.

Hence, the third critique of utilitarianism is the critique of insufficient efficiency. The two principles of justice would ensure that people would gain more than a position

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<sup>14</sup> Numbers are chosen arbitrarily.

established through the principle of utility. The difference principle is not a position that allows the loss of the most advantaged share in the society.

With the third critique, we can divide Rawlsian theory of justice into two: the first is the principle of justice and the justification of the principle of justice. These principles are formed in a bargaining position, which forbids their knowledge of their status in society. This is where individuals give up some of their share with the internally, reasonably imposed veil of ignorance. Veil of ignorance demands the giving up of some of their share due to the chance of living in the least advantaged group in society. It is the maximin strategy. The second is the social cooperation which guarantees everyone's economic situation compared to a position in the absence of social cooperation. It is the practising part of the contract, and in this point the concept of reasonable is abolished. This assures the individual by ensuring efficiency, which means more income and wealth than under utilitarianism. Contrary to classical social contract theory, Rawls explains obeying the laws as a utilitarian explanation, which measures the exercising and obeying of the law with utility rather than consent.

Through the contract made by reasonable argument, people would increase their share in the holding which is the only inequality exercised. On the other side, Rawls proposes another base to exercise the two principles of justice. The strains of commitment suggest that for a rational man in the original position it is assumed that he will be compliant. "They are rational in that they will not enter into agreements they know they cannot keep, or can do so only with great difficulty" (Rawls 1999a, 126). However, how can they be sure that others will obey the law?

On this point, Rawls suggest two different justifications for the stability, but the two methods of reasoning are eventually the same. Firstly, Rawls addresses the principle of utility, which is the main rival of the principle of justice. Every principle holds the publicity condition, which means that everyone knows what the principle of justice is. In the exercising of the principle of utility, the publicity principle has been damaged since the least advantaged group is sacrificed. On the other side, the difference principle protects the least advantaged, and it forbids the sacrificing due to increasing the sum of

net utility. The principle of utility cannot be publicly accepted since the least advantaged group would not welcome it. “If the parties accept the utility criterion, they will lack the support to their self-respect” which is one of the primary goods everyone desired (Rawls 1999, 158). Furthermore, the principle of publicity does not only mean knowing the principle of justice. The principle of publicity also suggests recognizing the compelling sense of justice. They know that it is unfair.

Secondly, when the principle of publicity favours the sense of justice, “no one wishes to advance his interests unfairly to the disadvantage of others” (Rawls 1999, 435). There is no reason for an individual to deny that he would be better off by violating the rules or without the rules or with the principle of utility. “Everyone may expect to improve his situation if all comply with these principles, at least in comparison with what his prospects would be in the absence of any agreement.” (Rawls 1999, 435). The egotism causing the violation of rules is only exercised in the position of no agreement existing. Well-ordered society enables the fair terms of social cooperation, and everyone relies on better circumstances.

The two methods of reasoning on stability are the same in the sense that an individual would be better off without violating the social cooperation. Everyone increases their share in income and wealth by social cooperation and the two principles of justice. On this point, there is no “incentive” to violate the principles of justice. The social cooperation offers more payoffs than the principle of utility.

In this manner, it is clear enough to say that in a Rawlsian understanding of the social contract, people would obey the law since the contract and social cooperation would cause them to rely on better economic conditions. It shows that the social cooperation is not a bargaining game as the theory of games suggested.

## **4.2 GAUTHIER**

### **4.2.1 Constrained Maximizers**

Morality is always recognized contrary to rational desires and utility. A rational man, who knows what his good is and what is necessarily needed to achieve this, regards morality as an obstacle. “Why morality should be seen as constraining our choices and actions.” (Gauthier 2006, 517). For this reason, “morality faces a foundational crisis” (Gauthier 2006, 516). Morality has no ground to exercise for today. Gauthier (2006) is in a position that cannot refuse morality, and on the other side he does not underestimate the notion of rational man and that European tradition has been built on it. Gauthier maintains the theory that connects rationality of man and morality. Gauthier (1986) tries to diminish this view of morality, which constrains rational man’s desire.

However, individuals’ intent to fulfil their understanding of good affects others’ fulfilments contrarily. Thus, “each person’s reason for accepting a mutually constraining practice is independent of their particular desires, aims and interests” (Gauthier 2006, 516). Agreed constraints on the practices in civil society are the outcome of concerns of rational man that his fulfilment is open to be affected by others.

Hence, moral practices are founded on rational actions of man and “moral practices are rational” (Gauthier 2006, 522). It is rational to constitute constraints on individuals’ direct maximization in achieving a good, and individuals would pursue this to gain an understanding of justice. If we assume that moral practices are rational and constituted voluntarily, they must be the object of hypothetical agreement (Gauthier 2006).

Gauthier breaks out with the essential characteristics of the individual and their social existence. The essential characteristics of an individual and their social existence, which means living in a society peacefully, are different positions. Whatever the

essential characteristics of an individual are they are “not the product of their social existence” (Gauthier 1977, 138). Rather, the characteristics of men constitute the society. Thus, Gauthier believes that in Western political thought, the individual is prior to the society. On the one hand, the individual is prior to the society and, on the other hand, the human passes through the behavioural change when he becomes a member of society. Gauthier’s first criticism of the social contract tradition is that changes in the characteristics of the individual do not require him to live in society. In classical contract theory, society has emerged from the pre-political needs in the state of nature. Thus, if Contractarianism is to rationalize society, “these needs must be represented, not as only pre-social, but as permanent” (Gauthier 1977, 139). The changing characteristics of men through the contract are not compatible with the contract since these requirements establish the necessity of the contract. Otherwise, the contract would be unnecessary since it does not answer the needs of an individual in the pre-social phase.

In the bargaining situation (Gauthier 1986), every rational man would try to maximize their utility. These are what Gauthier called, *straightforward maximizers*. However, self-interest is in progress only at an optimal point that is ensured by a *perfect marketplace*. A perfect marketplace is the state of the market in which every individual knows other individuals will act, and individuals cannot achieve by another individual’s loss or gain. The perfect marketplace reflects the concept of the state of nature. In a perfect marketplace, every individual shares the same rationality and the same knowledge. Every individual is placed in the perfect marketplace as an equal bargainer. The motive behind the bargaining is that no individual can gather more in the perfect marketplace. “An individual cannot maximize their utility by demanding more than an amount that is optimal” (Kahane 1995, 116).

Bargainers pursue more than they would have in the bargaining process compared to the perfect marketplace. It means that every individual approaches the bargaining situation with his “concession”. Each will demand a concession compatible with his/her situation in the bargaining process. In this case, no one would agree on the other’s concession since the other’s concessions would be in conflict with his/her desire

and intention in the bargaining process. Realizing this endless concession concludes with the minimizing of their concessions in the bargaining position. “Rational bargainers will endeavour to minimize their concessions.” (Gauthier 1990, 24). This situation is the *principle of minimax concession* that is the main constraint in the bargaining process in Gauthier’s theory.

In this manner, rationality imposes some restriction that is the foundation of moral principles on the individual. Gauthier (1986) calls these maximizers *constrained maximizers*. Constrained maximizers regard society as a venture that provides joint strategy. Constrained maximizers, thus, expect from the joint strategy more than a state that he/she can gain without interaction with the other. It would be irrational to expect an individual to enact some principles in a situation where he can earn more without the principles. “His cooperation is dependent on his expectation that he benefits in comparison with the utility he could expect where no one cooperated” (Gauthier 1986, 118).

#### **4.2.2. Non-arbitrary Society**

The classical social contract theory tries to determine and to justify the rights and duties between the individual and society on a hypothetical contractual basis. Thus, in Classical Contract Theory, the concept of rationality is used to rationale the society. Gauthier’s second criticism of Contractarianism is that, as a consequence of determining rights and duties between individuals and society, there is the absence of the cause of those relationships.

His third criticism of Contractarianism is that society has a chance to be *arbitrary*. Arbitrary means that “the society cannot fulfil the fundamental needs of most or all of its members” (Gauthier 1977, 140). Contractarian society is arbitrary since it relies on the convention only to play rationale for the society. It is a pure conventional

model of society that is based on consent and cannot sustain the needs of all its members; thus, it is arbitrary.

Gauthier calls the benefit gained by actions in the state of nature, *the natural outcome*. The natural outcome is a benefit that he would gain without the interaction with society. Gauthier describes non-arbitrary society as a situation where the benefits of social action are greater than those of the natural outcome. If people are in a position where they can gain more without social action, the society is then arbitrary. Hence, “a non-arbitrary society must improve on the natural outcome for everyone” (Gauthier 1977, 141).

Gauthier underlies that establishing the outcome should not be based on the optimal interpretation. This position may be good for some sections in society, but the optimal point reduces some groups in society with relevance to the natural outcome. A non-arbitrary society, then, “is possible only if the natural outcome of the situation is not optimal” (Gauthier 1977, 142). The optimal point is worse for some groups than in other possible alternatives.

As in Rawlsian theory of justice, we can divide Gauthier’s social contract theory into two: first is the bargaining model, which is exercised by constrained maximizers, and the minimax concession is the constraint upon individuals. To constitute a society, or in Gauthier’s term to achieve more than the optimal point in the state of nature, individuals put limits on their behaviour internally. The second is the non-arbitrary society, which ensures that interacting with society offers more than the gain of the natural outcome.

Hence, stability of outcome means that no one can achieve an alternative outcome that is better for himself. It shows two important points: social cooperation is not a bargaining game in which an individual should limit the potential gain, which is the second part of Gauthier’s theory, and it is worse for some groups. Secondly, it is the most efficient point, which assures people that there is no better distribution for himself/herself.

In the theory of games, one-sided cooperation and defection will cause the highest share for the defector. Gauthier (1977) ensures that social cooperation should cause more than this one-sided defector's payoffs.

On the other hand, stability of outcome is another feature of a non-arbitrary society. Stability of outcome means that no one can arrive at an alternative outcome that is better for himself. Stability ensures that people "obey the law", and diminishes the possibility of defecting from the contract. The principle of stability assures individuals that others will obey the laws of the contract.

### **4.3. BUCHANAN**

#### **4.3.1. Constitutional Contract**

For the social contract tradition, contract means a voluntary act to constitute a society and the State. After the voluntarily entered initial position, the notion of contract remains silent, and there is no contract to reinvent. On this point, Buchanan offers two different and lexically ordered contracts. He proposes that initially, at the end of the Hobbesian state of nature, individuals created the constitutional contract, which was the contract in the classical sense. Then, individuals created the system to trade with each other to increase their utility, and that is the post-constitutional contract. While a constitutional contract maintains the theory of law, on the other side, post-constitutional contracts maintain the theory of public goods. Post-constitutional contracts are "the exchange of private and partitionable goods and services" (Buchanan 1975, 35).

The political thought of Western civilization derives from idea of the institution of a free society and from the rational man, which considers every individual as free and equal. For Buchanan (1975), this reasoning is highly idealistic. His motive is to show that free society, without any equal position in the initial bargaining process of the



contract, can be reached by self-interested man. Establishing the equality in the constitution of the State is dispensable since “we live in a society of individuals, not in a society of equals” (Buchanan 1975, 11).

In the state of nature having no property rights, the natural environment becomes a common property, which means that every individual can gather whatever they want, and the only limit is their talents. Furthermore, Buchanan offers the view that an individual could choose to save the resources for the future. In the state of nature, “production is not simultaneous with actual consumption” (Buchanan 1975, 56). Thus, a person’s effort is affected by others. This is an external effect, which shows that a person would choose to save and to use the goods for their defence from other individuals. In a world of scarcity, all individuals reach a point of *natural equilibrium*; that is, everyone is ready to give up some of their goods to guarantee the rest of the goods. Natural equilibrium is a state in which parties cannot save and/or have more. Having more possessions is not beneficial for the party. “Each person uses resources to defend and to attack other persons” (Buchanan 1975, 58). An individual agrees to abandon his defensive and aggressive behaviour in order to change others’ attitudes on predation and self-defence. This process shows the disarmament of the individual in the state of nature.

This armament does not include property of rights or contractual status. The *natural equilibrium* is the first step in moving away from the anarchic state of nature. This initial agreement is the first limit of the individual’s liberty. Furthermore, this initial agreement can only be achieved by survivors who are strong enough to live in the state of nature. People are unequal in their capacities, and some of them can take over others’ goods. However, even if one is stronger than others due to his capacity, it is not preferred to complete the elimination of the others. In this position the disarmament agreement of the parties could be a slave contract in which “the weak agree to produce goods for the strong in exchange for being allowed to retain subsistence that they may be unable to secure in an anarchistic setting” (Buchanan 1975, 60). Even in the slavery contract, individuals would constitute the society to gain more by the public goods.

Buchanan describes the constitutional contract as follows:

Table 4: Two-by-Two Matrix for the Two-Person Example (Buchanan 1975, 64).

		B	
A		Respects rights	Respects No Rights
	Respects Rights	Cell I 19,7	Cell II 3,11
	Respects No Rights	Cell III 22,1	Cell IV 9,2

Buchanan (1975) proposes the prisoner's dilemma with pure strategies, in which a player can choose only defection or cooperation. Buchanan's game also has two Nash equilibriums. In a two-by-two matrix system, both parties have two options. First, both can reject the positive rights in stocks of goods which are an anarchistic state of nature, Second and third, only one party would agree on rights in goods and the other would not, which means that the disrespected individual has the greatest utility and vice versa. Moreover, lastly, the fourth is a situation in which both parties recognize the other's right to possess goods. In this state, both parties would achieve more than the anarchistic state of nature in which no party recognizes other's right to obtain goods.

An individual has an inclination to accept only a one-sided recognition of the rights, but sooner or later he realizes that this situation (second and third) would conclude with leaving the state of nature. On this point, the need to exercise and monitor the law arises. To do this, all individuals constitute the State in the process, which is voluntarily, to punish the individual in the specific circumstances. Other persons have no direct utility for the punishment of those who act contrary to the contract, but they realize that the punishment makes their goods and claims more secure. To approve punishment, it must be carried out by an external enforcement entity, which is constituted by the voluntarily entered contract. "The public good is the generalized

security of the rights or claims” (Buchanan 1975, 67), the protection, thus, guarantees the right to obtain goods.

#### **4.3.2. The Post-constitutional Contract**

Buchanan, as stated above, tries to constitute the State and rights by a non-idealized concept that does not rely on contractors’ equality. The first contract of the constitution is the justifying tool of the second, which is the theory of public goods. The rule of unanimity is the voluntary participation of the parties in the post-constitutional contract. The rule of unanimity maintains an individual right to refuse the outcome, as it is the consent-based occupation. On the other side, the theory of public goods asserts that to ensure institutional efficiency the rule of unanimity should be withdrawn.

Post-constitutional contracts are made in implicit positions unless the third party can offer more favourable terms. This implicit position requires unanimity, which is the principle of coalition between the traders. The conditions on trading should satisfy the efficiency for both sides. The principle of unanimity is a voluntary position in the two party situation. The principle of unanimity “will insure to each that he will not be harmed or damaged by collective action” (Buchanan 1975, 38). In a two-party contractual model, both sides of the agreement know that his/her attitude is dependent on his/her own utility.

However, on the scale of multiparty joint social goods, the problem of free riders occurs. On this point, Buchanan criticizes the orthodox understanding of a *free rider problem*. For Buchanan realizes that the term free rider refers to the strategic behaviour in the participant in the social choice. A free rider is a person “who secures the benefits of the jointly consumed good without participating fully in the sharing of its costs” (Buchanan 1975, 37).

The free rider position is a strategic behaviour, and a protective State should abandon this position to protect others who are willing to share the cost. If a free rider position in the participation is strategic behaviour of the party, it constitutes a right of

exclusion. If there were a right to exclude a participant who acts as a free rider, the inefficiency caused by the free rider may decrease. To do this, it is necessary to “redefine the assignment of rights in a constitutional contract so as to embody exclusion” (Buchanan 1975, 40). This means that the membership in society suggests a compelled participation in the post-constitutional contract to reveal the public good. Even behaviours are restricted by the rule of unanimity; that is, the voluntary participation, and the State must be one of the parties in processing the public goods. Thus, the State should be established by contractual agreement that requires every member’s full consent. However, in the post-constitutional contract processing “the public good that efficiency dictates” (Buchanan 1975, 41) would not be constituted by the voluntary acts of individuals since they are routed by the own initial endowments.

This means a departure from the unanimity rule in the establishing of social choice. Maintaining social choice under the unanimity rule is possible; however, this means that every participant can have a right over the final terms. The right to veto the final terms increases the contracting costs as it relies on every participant’s non-cohesive consent. To ensure institutional efficiency, departure from the unanimity rule is indispensable.

There are two scenarios of this departure. First, *indirect contract under less-than unanimity decision rules* suggests that a participant’s position holds more goods than a situation without the collective choices. An indirect contract with less than the unanimity decision rules provides people with net utility. Thus, participating in the collective action is beneficial for both parties. It is even more beneficial than the strategic behaviour of the free riders. Second, *unconstrained departures from unanimity rules* suggest that participating in the social action would result in lower utility than there might have been without the participation. Social action arrives finally with net utility losses, which are hard to enact in a contractual form since collective action becomes “a thug” in this position. This kind of organizing collective action destroys the individual’s natural endowments.

The latter is not Buchanan's concern since his level of analysis is individualistic, and unconstrained departure, which ensures the State's undemocratic rights cannot be exercised in democratic society. Then, *the indirect contract under less-than-unanimity decision rules* is the measurement of the departure from the voluntary action. It shows that the limit of this departure is the point that everybody participated in a collective action similar to the exercising of the difference principle.

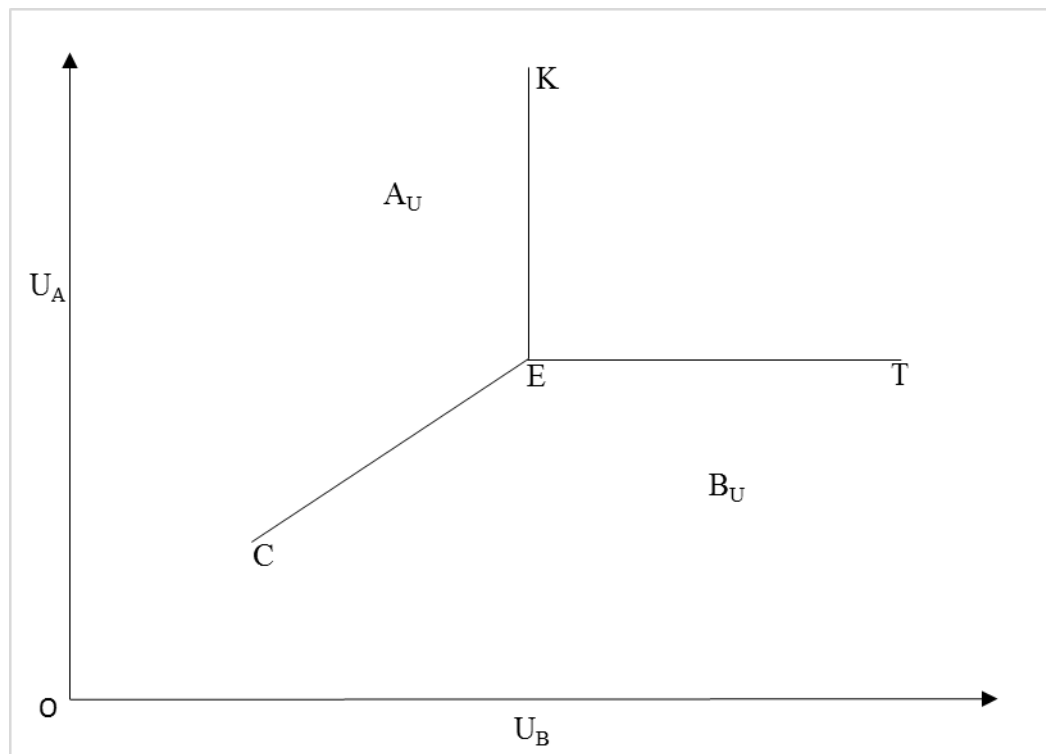


Figure 5: Indirect Contract Under Less-Than-Unanimity Decision Rules (Buchanan 1975, 45)

Figure 5 shows the indirect contract under less-than-unanimity decision rules. The X axis is the utility of A, and the Y axis is the utility of B. Point C is the constitutional contract and E is the post-constitutional contract which offers everyone gain. However, there are further gains from the trade. After E a post-constitutional

contract cannot choose either the point of  $B_U$  or the point  $A_U$ . At these points, one side of the party relies on a worse economic position compared to a position without the social participation. Thus, the post-constitutional contract suggests the area between the line of EK and ET. In this area everyone is better off than without social interaction. Participating in the collective action is beneficial for all.

The rule of unanimity is impossible since every individual has the right to veto, and the departure is necessary to maintain efficiency. *Indirect contract less-than-unanimity decision rules* assure individuals that they will gain more in a position compared to absence of the social cooperation. This means that the post-constitutional contract does not offer a bargaining game, which results in one of the parties losing its share to compromise with the others.

#### **4.4. TWO DIFFERENT CONCEPTIONS OF SOCIAL COOPERATION**

In this chapter, we have divided Contemporary Social Contract Theory into two: constituting the state and rules of fair social cooperation. Fair social cooperation is a tool to consent.

A Rawlsian conception of justice suggests that individuals have a moral power, which pursues fairness. In this manner, a veil of ignorance is not an externally imposed constraint. One can think that it is a bargaining game between the most advantaged group and the least advantaged group with their payoffs. In the original position, parties use the strategy of maximin, which means increasing the lowest income since no one knows his position in the real world. However, the original position is a bargaining game between equality and efficiency. The principle of reciprocity chooses the equilibrium between equality and efficiency up to a point in which inequality is not beneficial for every part of the society.

On the other side, Gauthier suggest the principle of a minimax concession. It is contrary to maximin strategy. While Rawlsian maximin strategy suggests increasing the lowest income, minimax strategy offers decreasing the maximum payoffs. Since no one would agree on the claims of straightforward maximizers, people start to reduce their expectations. Eventually, everybody will adopt a constrained maximizer's view, which is the foundation of morality. Furthermore, it is internally exercised principles.

Buchanan explains the state of nature using the game theory approach. In the state of nature, individuals reach a natural equilibrium in which they are ready to give up some of the payoff due to gain more in the future.

From the Chapter II, we have three measurements of the game theory approach. Firstly, we need to calculate the utility. The classical social contract theory does not offer this calculation, while the contemporary social contract theory does offer it. Secondly, in the bargaining game, people would agree the outcome in which one of the parties has potential loss on payoffs. And thirdly, to legitimate this consent, the game theory approach offers external tools to ensure everyone would cooperate. According to Skyrms (1996), to enact cooperation he needs an externally added conventional model. Also, for Binmore, he proposes a threat in which one-sided defection would cause punishment for the party meaning that no one is going to cooperate with the individual again.

In the second part of the social contract theory, which involves social cooperation, it differs from the classical social contract theory; they built an understanding of consent based on utility. All these three thinkers assert that people would obey the law when through social cooperation they would gain more compared to a position without social cooperation. Rawlsian critique of efficiency, Gauthier's non-arbitrary society and Buchanan's post-constitutional contract assures people that no one is going to lose his share with social cooperation. No one's sacrificing is necessary. Every individual will increase their share through social cooperation. Their distribution model is stable since there are not better payoffs existed.

One can consider that even in the theory of games, when they have entered a bargaining game, all individuals increase their payoffs. This is appropriate in our understanding of social cooperation in the contemporary social contract. However, contemporary social contract theories suggest that even if there is a possible increase it is arbitrary. Social cooperation assures everyone that even in one-sided cooperation and defection, through social cooperation, the payoffs will be more than the defector's payoffs, which is the best payoff for the defector in the prisoner's dilemma.

Both evolutionary game theory and contemporary social contract theory present different understandings of social cooperation. They are different in both externality and implying the equilibrium. Furthermore the social cooperation of a contemporary social contract does not offer any bargaining model.



## **CHAPTER V**

### **CONCLUSION**

This study focused on grounding social contract theory by the theory of games. Both disciplines try to maintain social cooperation. Thus, this study compares the understanding of social cooperation of both traditions.

Theory of Games shows the possible cooperation point and equilibrium. It calculates the utility, which is the outcome of different strategies. Bentham (1948) offers the principle of utility as a tool of calculating the happiness. The higher share represents higher happiness that is desired more. Accordingly, in order to compare the theory of games and social contract theory's conception of social cooperation, firstly, social contract theory's understanding of social cooperation should calculate the utility, and it should be measurable. In this study, measurability of the utility is the first and main characteristics of the theory of games' understanding of social cooperation.

John Nash (1951) suggests the Nash equilibrium, in which the player cannot increase his pay-off without the other player changing his strategy. He also suggests that every non-cooperative game has at least one Nash equilibrium (1950). In Prisoner's Dilemma, there are two Nash equilibriums. When both players cooperate, and both defect, these are Nash equilibriums. The best pay-offs are gathered for the defector only by one-sided cooperation and defection. Prisoner's Dilemma is played once, and decisions are made instantly.

On the other side, the Evolutionary Game Theory suggests that through the iteration of the games, players reach equilibrium. The evolutionary game theory offers another justification of the Nash equilibrium. Contrary to Nash (1951), which suggests that at least one Nash equilibrium exists in the non-cooperative games, Evolutionary game theory offers only one Nash equilibrium in the game.

The evolutionary game theory suggests that the iteration of the game will lead to a unique Nash equilibrium. Moreover, matching between groups and individuals is totally random in the game. Axelrod (1984) suggests that this evolution would lead to cooperation. On the other hand, Skyrms (1996) and Binmore (1998) suggest that this evolution may not lead to a fair distribution. Skyrms (1996) calls it the polymorphism trap, meaning that even if the fair distribution mutant evolved, it is impossible for them to overcome with a common distribution strategy. In this point, Skyrms tries to decrease the random rate of the individuals to avoid the polymorphism trap. If the individuals know who will match, they will decrease their distribution to be fair.

In order to ensure a fair distribution, Skyrms (1996) offers the convention model. If players know who will play in what strategy, the polymorphism trap is overcome. If the players signal their preferences, whenever they match with fair distribution supporters, then cooperation will evolve. On the other hand, Skyrms admits that his understanding of fairness does not have to be the same once and for all. Thus, an individual needs convention to express their understanding, which is very familiar with the original Rawlsian position (Skyrms, 1996).

Braithwaite focuses on mixed strategies, and we do not discuss any mathematics in this study. Also, a mathematical explanation of the game theory is not our concern in this study. According to the Nash equilibrium, Matthew should play his instrument with a 93% rate of probability, with Luke at 7%. The reason behind this extreme difference is that Matthew has a threat advantage on Luke, which means that Luke is having more fun with Matthew's instrument rather than Matthew on Luke's instrument (p.13).

Braithwaite finds that this solution is unfair. He suggests that the minimum point of utility which the players have agreed upon should be calculated first, which is the Pareto frontier, the parabola which shows that while one of players increases their utility per hour, the other's utility is decreased, should be cut with 45-degree line (p. 16). With this solution, Matthew should play 26 of 43 evenings and Luke should play 17 of 43 evenings (Braithwaite 1963, 54).

Braithwaite and Skyrms resist to the classical equilibrium and they interrupt the game as an arbiter. These scholars adapt social cooperation through externally added tools. Braithwaite has changed the multiplier of threat advantaged without any plausible ground. Skyrms acknowledges this problem and he offers this interference as players would agree on. According to Skyrms (1996) players would agree on convention model since, in this way they may have gain more payoffs compared to absence of externally added convention model. However, in the game players cannot reach the convention model. No matter how they consent on external forces, the convention model is constituted by the arbiter, which does not belong to the game. In this manner, social cooperation understanding of the theory of games has been reached by externally imposed tools by the arbiter. This study proposes externality as a second constraint of social cooperation categorization of the theory of games.

As shown in the prisoner's dilemma in the second chapter, there are four possible distribution in the theory of games using pure strategies. Firstly, there is an anarchic state of distribution that is the lowest payoff for the players. Secondly and thirdly, one-side defection from the agreement receives the best payoffs, which is the defector's share. In this position, the cooperating player's share is the lowest even than the share of the anarchic state. Lastly, there is a state of cooperation for either players that is not the highest or the lowest but more acceptable for both player. Thus, this state of cooperation shows that one of the parties should agree on the loss of possible payoffs since it is not higher than the defector's share.

In this manner, as the nature of the theory of games, social cooperation offers increased share based on anarchistic state of distribution, however, it is not the best payoff for the players. The theory of games understanding of social cooperation is a bargaining position in which through the social cooperation, one side of the game has a potential loss on the outcome, while the others increases his share by social cooperation. Thus, this study offers social cooperation as a bargaining position for the third criterion on the theory of games understanding of social cooperation.

To ground social contract theory, this study suggests three characteristics on social cooperation categorization of theory of games. Firstly, the utility gathered from social cooperation should be measurable. Secondly, social cooperation is constituted by the externally added tools, which has no role within the game. Thirdly, it is a bargaining position in which through the cooperation one of the parties may gain higher than the anarchistic state but lower than the defector's share which means that it is not the best preferable distribution for the player. First criterion is the main characteristics since if it was not measurable, it would not have any importance in analyzing other criterions.

In the third chapter, we have discussed the measurability of the social contract tradition. In the nineteenth century, social contract was in decline. The social contract theory offers private property; however, it does not offer guidance to commercial affairs. In this point, Bentham believes that the original contract is fiction, which may have been useful once, but the age of fiction is now over (Gough 1957, 190). Sir Stephen Leslie (1990) argues that the social contract has no ground to exercise in the nineteenth century. The social contract theory is a lack of regulation of commercial affairs. "The law of property was immediate to countrymen that the law had been developed in medieval times bore in all details the marks of the long series of struggles between king and parliaments" (1990, 22). It shows that justice and law required rigid terms rather than fiction and agreement between the king and the parliament. The theory of utility, in this way, does not offer consent, as were contractarians. It explains the necessity of social institutions based on utility.

In this manner, it is impossible to talk about whether or not classical social contract theory could be explained by theory of games. The classical social contract, for Hobbes and Rousseau, offers equilibrium, but it is impossible to compare these equilibriums with personal utility. Calculation of the utility is the critique of classical social contract theory. For this reason, this study did not focus on classical social contract theory. Even if the other characteristics matched, they would have lacked ground to analyze. Thus, the classical social contract theory have not been analyzed using other characteristics of social cooperation understanding of theory of games.

On the other hand, the contemporary social contract theory solves this problem. John Rawls (1999a) proposes that when all primary goods are distributed equally, only income and wealth can be distributed unequally due to the increase the least advantaged share. To compare personal status, Rawls uses the theory of utility. He admits that otherwise it is impossible to make interpersonal comparison (1999c). Gauthier (1986) explains rational choice as prisoner's dilemma. He identifies rationality with the maximization of the utility. Buchanan (1975), very similar to Skyrms, Binmore and Axelrod, try to explain how to pass through one Nash equilibrium, which is the defection, to the other Nash equilibrium, which is the social cooperation. It shows that the contemporary social contract theory offers calculation of the utility.

This study has focused on Rawls, Gauthier and Buchanan within the contemporary social contract theory. Furthermore, this study has divided every contemporaries into two parts; the first part is the grounding of social contract. These three academicians explain this part using the theory of games. For Rawls, individuals in the original position adapt to the strategy of maximin strategy increasing the minimum receiver (least advantaged) rather than increasing share of advantaged group in the society. Gauthier offers constrained maximizer adopting strategy of gaining less than the straightforward maximizers. However, constrained maximizers gain more in the long turn. Buchanan suggests that in order to gain more than the natural overcome, individuals would eventually give up some of their share to secure rest of it. All of these scholars show that the first part of the contract theory is a bargaining game of theory of games. Furthermore, individuals would agree on potential loss to secure the rest or to gain more in the long turn or to increase the least advantaged share.

According to Rawls, an individual has two moral powers: firstly, an individual has the sense of justice, which means that he would try to constitute fairness. Secondly, he can determine his concept of good, and he can pursue it. If an individual has a sense to determine what justice is, the veil of ignorance is not externally added. "The main constraint becomes internal in the original position" (Rawls 1999, 319).

Gauthier's main constrain is the principle of minimax concession. Straightforward maximizers start to bargain with their individual concession. However, since everyone offers different concessions, it is impossible to enact contract. Thus, eventually straightforward maximizers begin to abandon their concession. "Rational bargainers will endeavor to minimize their concessions" (Gauthier 1990, 24). The principle of minimax concession tries to minimize the maximum privileges (minimax strategy). Through this principle, contract is constituted.

For Buchanan (1975), natural environments are a common property of every individual. Every man can gather what he desires. Also, he can save his resources for the future. In this manner, survival of the individual is affected by the others, and natural equilibrium means that one is ready to give up their goods to guarantee the rest of it. Natural equilibrium is an equilibrium that no one can earn or save more. Natural equilibrium forces rational players to give their share to earn more in the long term.

Our second measurement is the externality of cooperation. All of these scholars show that contracting process is a bargaining game as the theory of games suggested, but the "cooperation" in the social contract theory is constituted by the internal factors rather than arbiter's interference. The veil of ignorance, the principle of minimax concession and the abandoning goods after the natural equilibrium is enacted by internal affair. No one forces rational players to cooperate. They willingly give up their share in order to earn more in the long term. The contemporary social contract theory has failed to provide second measurement of the theory of games.

Second part of the contemporary social contract theory emphasizes on the concept of social cooperation. This part of the social contract theory explains why an individual would obey the principles of social contract. Also the second part of the contemporary social contract theory highly focuses on the stability, and through the understanding of the stability, they guarantee the outcomes of the social cooperation.

The difference principle (maximin strategy) ensures that the inequalities should be beneficial for the least advantaged group in the society. However, Rawls underlines

that the inequalities should improve everyone's situation. The difference principle concerns not only the least advantaged but also the most advantaged group's income and wealth. "While the distribution of wealth and income need not be equal, it must be to everyone's advantage" (1999a, 53).

It shows that the iteration of the difference principle forbids to decrease the share of the most-advantaged group. Rather, it suggests that everyone should rely on better circumstances compared to the absence of the difference principle. In this manner, the repeated difference principle offers to increase every party's pay-offs. Otherwise, it is impossible to consent on the law, and Rawlsian theory of justice cannot maintain stability. "Everyone may expect to improve his situation if all comply with these principles, at least in comparison with what his prospects would be in the absence of any agreement" (Rawls 1999a, 435). Social cooperation ensures that everyone should increase their share compared to the anarchistic state.

Gauthier explains the natural outcome as a benefit in the state of nature, which is a gain in the absence of social interaction. A non-arbitrary society must improve on the natural outcome for everyone. Gauthier underlines that pay-offs should not be optimal. It is a criticism of the theory of games since the optimal point is worse for one player than the other alternatives. Society acts arbitrarily in this point. Stability of outcome ensures that there is no better distribution for the players. Everyone should increase their natural outcome with social cooperation. Non-arbitrary society ensures that pay-offs of cooperation is higher than the defector's pay-offs.

Buchanan describes the rule of unanimity as a consensual base of the contract. However, it shows that every individual has the right to veto on the outcome. In the distribution of public goods, the rule of unanimity increases the contracting cost and thus it is not efficient. Buchanan, in order to ensure institutional efficiency, departs from the rule of unanimity. It means that full consent distribution of the goods is not necessary. However, unconstrained departures from unanimity rules carries a risk of being authoritarian, as in Gauthier's arbitrary society. In this position, social action causes net utility loss. On the other hand, indirect contract under less-than unanimity decision rules

ensures that everyone will gain more compared to the absence of social cooperation. Post-constitutional contract does not offer a bargaining game since it is one side's possible loss. It should be beneficial for the both part.

The third criterion of the game theory and understanding of social cooperation is the bargaining position in which players should accept on cooperation which is the lower share than the defectors. All these three suggest that social cooperation is not a bargaining game which ends up decreasing someone's share. Rather, it is a position that everyone is better off with the social cooperation compared to the absence of it. Everyone enjoys increased payoffs even more than the defector shares in the prisoner's dilemma which one is the highest. Contemporary social contract theory legitimizes the consent on decreased share due to a greater gain with social cooperation.

One can consider that in the prisoner's dilemma, the share of cooperation is higher than the anarchistic state as the contemporary social contract theories suggests. However, contemporary social contract theory offers the best distribution that means that there is no better distribution. The social cooperation ensures that individuals would gain more than the defector's share, and there are no incentives to break the contract. It shows that the social cooperation understanding of the contemporary social contract theory does not offer a bargaining position, which the distribution of cooperation is lower than the defector's share.

The classical social contract theory has failed to fulfil the first criterion of the calculation of utility. Without the calculation of utility, other characteristics has no ground to analyze. Thus this study did not consider other criterions on the classical social contract theory.

The contemporary social contract theory offers the calculation of utility however, both tradition have different aspects on imposing social cooperation and on types of distribution (mainly as a bargaining game). This study focuses on grounding the social contract theory by theory of games, however, it is impossible to lay down since both traditions have different understanding of social cooperation.



In literature, the debate on Nozick and Rawls inclines to see Rawlsian justice as welfare statist since it tries to overcome with sacrificing of the least advantaged, while Nozick is libertarian on the distribution. This study, also, shows that this interpretation of Rawls is misleading. Not only Rawls, but also other contemporaries have strong critics on the distribution of the welfare state.

The welfare state underlines a specific distribution (patternship), and this distribution is mainly shaped by the bargaining position between the strong labour unions and bourgeoisie. While labour unions try to increase the share of workers, bourgeoisie try to protect their highest share. The conclusion is that, free from how much they have gain, workers have increased share and bourgeoisie have decreased share due to bargaining.

Both Gauthier, Buchanan and specifically Rawls criticize this bargaining position and their theory definitely forbids the bargaining position due to the second part of the contract that is the social cooperation. All these bargaining between the labour and bourgeoisie could be accepted as unfair by those contractarian since one side of the party has to agree on a potential loss. Especially, Gauthier would call this society as arbitrary. They have tried to constitute a distribution that everyone would gain more.

To conclude, Rawls's motive is to show that the contract theory is superior to the utilitarianism. However, as is utilitarianism, Rawls ensures the necessity of the principles by offering the best payoffs, rather than moral consent as classics offered. I believe it is a great shift between the classical and contemporary social contract theory. Perhaps this is the only way of offering consent nowadays...

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## APPENDICES

### A- Turkish Summary

Oyun Teorisi uzun zamandır akademik önemi sahip olmuştur. Von Neumann ve Morgenstern (2004) bu alanı matematik disiplininin iktisat alanına uyarlamıştır. John Nash, 1994 yılında Nobel ödülünü alarak, bu alana ilgiyi arttırmıştır.

Bir oyunda, bir tarafın karşı taraf stratejisini değiştirmeden, kendi payını arttıramaması sonucu Nash dengesi oluşmaktadır. 1950 yılında Nash, her oyunda en az oyuncu sayısının bir eksik olmak üzere Nash dengesi olduğunu göstermiştir. Bu dengeler mahkumun ikilemi oyununda, her iki tarafında işbirliği yaptıkları ve anlaşmadan kaçındıkları durumlardır.

Oyun bir kere oynandığında ya da tekrarlandığında, mahkumun ikileminde her iki grup, karşı taraf için en rasyonel olanın anlaşmadan cayması olduğu için, bunu göz önünde bulundurarak, işbirliğinden kaçmaktadırlar. Oyun teorisi disiplini, bu bu iki Nash dengesinden, işbirliğine daha önem vermektedir. Ve bu çalışma alanı, işbirliğinin bu oyunda nasıl sağlanacağı üzerine yoğunlaşmıştır.

Öte yandan, toplumsal sözleşme geleneği, yaklaşık olarak yüz elli yıldır rağbet görmemektedir. Fakat günümüzde, Rawls (1999a) bu anlayışı tekrardan canlandırmıştır. Rawls'un yanında, Gauthier (1977, 1978, 1985), James Buchanan ( 1975, 2004) bu geleneği tekrardan canlandıran düşünürlerdir.

Klasik sözleşme teorisi birey ve devlet arasındaki hak ve görevleri düzenlemeye çalışırken, günümüz toplumsal sözleşme teorisi toplumun kurulmasıyla birlikte toplumsal bir işbirliği kurmaya çalışmaktadır.

Bu durumda, her iki disiplin toplumsal bir işbirliğinden bahsetmektedirler. Her iki gelenekte birbirlerinin kavramlarını kullanmaktadırlar. Her iki gelenek arasındaki

etkileşim her geçen gün daha da artmaktadır. Bu yüzden, toplumsal sözleşme geleneğinin oyun teorisi üzerinden açıklanıp açıklanamayacağı sorusu önem kazanmıştır.

Bu araştırmada, toplumsal sözleşme geleneğinin oyun teorisi üzerinden açıklanıp açıklanamayacağı tartışılmıştır. Bu soru, her iki geleneğin toplumsal işbirliği kavramının karşılaştırılması olarak indirgenmiştir. Her iki alanda toplumsal bir işbirliği kurmaya çalışmaktadır, fakat her iki alanında bahsettikleri toplumsal işbirliği benzer özellikler mi taşımaktadır? Toplumsal sözleşme geleneğini oyun teorisi üzerinden açıklamak için, her iki çalışma alanının da aynı işbirliği kavramını öne sürmesi gerekmektedir.

Oyun teorisi matematik ve ekonominin bir alt dalı olarak, rasyonel kişiler bir pazarlık ortamına girdiklerinde bir denge modeli yaratmaya çalışmaktadır. Ekonomi alanında özellikle, fayda ölçüp bunu dağıtmaya çalışmaktadır.

Von Neumann ve Morgenstern (2004) fayda teorisiyle birlikte, *pure* ve *mixed* stratejileri sunmuşlardır. Pure stratejiler oyundaki taraflara işbirliği ve cayma opsiyonları sunmaktadır. Öte yandan mixed stratejiler, dağıtılacak paylara göre olasılığı hesaplamaktadır. Bu araştırma da pure strateji üzerine yoğunlaşmıştır.

Mahkumun ikilemi oyununda, en yüksek pay bir tarafın işbirliği ve bir tarafın cayması sonucu cayan tarafın alacağı paydır. Bu durumda işbirliği yapan tarafın payı, caydığı duruma göre daha düşüktür. Bu yüzden bir taraf anlaşmadan caydığında, diğer taraf için en rasyoneli anlaşmadan caymasıdır. Buna ek olarak, her iki taraf içinde, işbirliği yapılan nokta, her ikisinde caydığı noktadan daha fazla fayda getirmektedir. Fakat en yüksek pay, karşı taraf işbirliği yaptığındaki alınan paydır. Her ikisinin işbirliği yaptığındaki aldığı pay, bir önceki durumda, cayan tarafın aldığı paydan daha azdır. Her ikisinin de işbirliği yaptığı ve caydığı durumlar Nash dengesidir.

Smith and Price (1973) türlerin biyolojik hareketlerini anlayabilmek için evrimsel oyun teorisini sunmuştur. Burada, klasik oyun teorisindeki gibi, taraflar ani karar vermezler, ve oyun defalarca tekrarlanır. Evrimsel oyun teorisi, uzun vade de tek bir nash dengesine ulaşır.

Axelrod (1984) uzun vade de en çok kazandıran stratejiyi bulabilmek adına bir turnuva düzenlemiştir. Bilgisayar ortamında yapılan bu turnuvayı Tit-For-Tat adlı strateji kazanmıştır. Tit- For-Tat ilk tur da işbirliği yapıp, sonraki turlarda, karşı tarafında yaptığını yapmaktır. Evrimsel oyun teorisine göre, uzun vade de Tit-For-Tat evrimsel denge stratejisidir. Bu durumda, ALL C ve ALL D strateji metresinin en uç iki noktasıdır. All C her zaman işbirliği yapmaktadır ve Tit-For-Tat ile karşılaştığında her zaman, Tit-For-Tat karşı tarafın hamlesini taklit edeceği için, her zaman işbirliği ile sonuçlanır.

Oyun Teorisi ilk kez R.B. Braithwaite tarafından uyarlanmıştır. Luke ve Matthew aynı apartmanda yaşayan iki bekardır. Her ikisinin de 21.00 ve 22.00 arasında dinlenme saatleri vardır. Ekonomik olarak başka eve çıkma durumları bulunmamaktadır. Her ikisi de boş vakitlerinde müzik aleti çalmaktadırlar ve evin akustiğinden dolayı birbirlerinin müzik seslerini tam olarak duymaktadırlar. Luke, Matthew çalgısından, Matthew'in onun çalgısından aldığı zevkten daha fazla zevk duymaktadır. Yani, dinlemey daha meğillidir. Bu durumda, Matthew'in Luke üzerinde tehdit avantajı bulunmaktadır.

Bu durumda, Braithwaite, oyun teorisini Luke ve Matthew'in müzik aleti çalma faydalarına göre uyarlamıştır. Braithwaite analizinde, mixed strateji kullanmakla beraber, Nash dengesine göre %93'lük bir olasılıkla Matthew kendi müzik aletini çalmalıdır. Bu durumu Braithwaite adil bulmamaktadır. Bu yüzden Braithwaite önce kişilerin kabul edeceği minimum faydayı hesaplayıp, Matthew'in tehdit avantajını daha az etkili hale getirmiştir. Braithwaite'in çözümüne göre, 43 gecenin 26'sında Matthew kendi müzik aletini çalarken, Luke 46 gecede 17 gece kendi müzik aletini çalma olasılığına sahiptir.

Oyun teorisine bir dağıtım mekanizması olarak baktığımızda, eğer iki kişi bir kek bölüştürmeye çalışıyorsa burada en rasyonel dağılım, her ikisininde kekin yarısını talet etmesidir. Eğer bir taraf yarısından fazlasını ister ise, kekden bir parça alamayacaktır. Buna karşın, yarısından az talep eden buna kesinlikle sahip olacaktır. Bir kekin yarısı, bir taraf için olası en büyük paydır.

Bu durumu bir topluma uyarlar isek, diyelim ki toplumun belli bir kısmı 7/10 oranında pay talep etmekteyken, diğer kısmı 3/10 oranında talep etmektedir. Bu gruplar birbirleriyle rastgele eşleşecektir. 3/10 talep edenler kiminle eşleşirse eşleşsin, talep ettiklerini alacaklardır. Öte yandan 7/10 talep edenler, sadece 3/10 talep edenlerle karşılaştıklarında istediklerini alabileceklerdir. Bu grupların nüfusları göz önüne alındığında, payı az olan gruptan çok olan gruba bir dalgalanma gerçekleşecektir. Oyun tekrar tekrar oynandığında bu dalgalanmalar sonunda bir dengeye ulaşılacaktır (*evolutionary stable strategy*).

Bu noktada, Skyrms (1996) erişilen bu dengenin adil olup olmadığını tartışmaktadır. Öte yandan, evrimsel oyun teorisi *evolutionary stable strategy*'ye erişildiğini, başka bir strateji ile hayatta kalınamayacağını öne sürmektedir. bu durumda, Skyrms adil bir dağılımı isteyenler evrildiğinde dahi, toplum içerisinde hayatta kalamayacağını öne sürmüştür. Bunu bir “*polymorphism trap*” olarak adlandırmıştır.

Bu durumu ortadan kaldırabilmek için, Skyrms oyunun içerisinde fakat dağıtılacak paylardan bağımsız olarak, grupların bir araya geldikleri ve görüşlerini anlattıkları bir toplantı modelini öngörmektedir. Taraflar burada karşı tarafa anlattıkları kararlarını oyun içerisinde uygulayacaktır, çünkü bu şekilde daha çok kazanabileceklerdir. Fakat bu durum, oyuna tamamen dışsal bir etki ile yaratılmıştır.

Binmore kendisini Harsanyi ve Rawls arasında bir noktada görmektedir. Rawls, kendi teorisinde minimum pay alacak kişinin payının arttırılması olan maximin stratejesini uygulamaktadır. Öte yandan Harsanyi, bireylerin, belirsizlik durumunda riske gireceklerini ve maximin stratejesini uygulamayacağını söylemektedir. Binmore bu noktada Harsanyi tarafındadır. Ayrıca, Binmore toplum içerisindeki güçsüzlerin korunmaya olan ihtiyacı konusunda da Harsanyi'yi eleştirmektedir. En az avantajlı grubun sakınılması konusunda Rawls'a yakın bir görüşü bulunmaktadır.

Binmore da, tıpkı Braithwaite ve Skyrms gibi, oyun teorisinde işbirliğinin sağlanması için, dışarıdan bir etkenin gerekliliğini vurgulamıştır. Fakat burada doğrudan bir müdahaleden ziyade, bir kişi eğer anlaşmadan cayar ise, sonraki turlarda

karşı tarafın güvenmeyecek olması, bir cezalandırma mekanizmasıdır. Bu durumda taraflar, ilerki turları düşündükleri için, anlaşmadan caymayacaklardır ve toplumsal bir işbirliği meydana gelecektir.

Binmore tek bir dağıtımın reçetesini vermekten kaçınmakla beraber, taraflar dağıtımdan mutsuz olduklarında yeni bir sözleşme yapılacağını öngörmektedir.

Bu düşünürler ışığında, eğer toplumsal sözleşme geleneğini, oyun teorisi üzerinden açıklama gayretindeyssek ve bunun için de toplumsa işbirliği anlayışlarını karşılaştıracak isek; toplumsal sözleşme geleneğinin açıkladığı toplumsal işbirliği şu öğeleri içerisinde bulundurmalıdır:

İlk olarak oyun teorisi için faydanın ölçülebilir olması gerekmektedir. İkinci olarak işbirliğinin dışarıdan ve bir “arbiter” tarafından müdahalesi edilmesi gerekmektedir. Üçüncü olarak da oyun teorisindeki işbirliği, anlaşmadan cayan taraf için olası bir pay kaybıdır. Toplumsal sözleşme düşünürlerinin bahsettikleri toplumsal işbirliği, bir grup için olası kaybı mı uygulamaktadır?

Toplumsal sözleşme geleneğinin kökleri stoic okuluna kadar gitmektedir. Stoikler bir insanın devlette vatandaş olmasının yanında, bir rasyonalite kardeşliğine ait olduğunu ve buranın doğal hukuk dediğimiz farklı kuralları olduğunu öne sürmüşlerdir. Bu doğal hukukun varlığı, devletin yasalarının nasıl olması gerektiğine dair bir yöndür ve devletin yasaları bu hukuk sistemini uygulamak zorundadır. Augustine, buradaki hiyerarşik ilişkiyi dini ve dünyevi otorite arasında kurmuştur.

Ortacağ’ın başlarında, dini otorite dünyevi işlere müdahale etmek için, krallara karşı doğal hukuk anlayışını öne sürmüşlerdir. Sakson ayaklanmasında, kutsal Roma İmparatorluğuna başkaldıran prensler, Kral sözünü tutmadığı ve kralın yetkisini kaybettiğini savunmuşlardır. Manegold’a göre, eğer kral bir tirana dönüşürse, insanların başkaldırmaya hakları vardır, çünkü öncelikle kral sözleşmeyi ihlal etmiştir.

Engelbert, 14. Yüzyılın sonlarında ilk olarak civil toplum öncesi bir doğa durumu olduğunu öne sürmüştür. Cusa’lı Nicholas, herkesin hür ve eşit olduğunu bununla birlikte yönetimlerin, onu oluşturan insanlarca rızasından doğduğunu

savunmuştur. Salamonio, 16. Yüzyılın başlarında, ilk kez yönetici ve yönetilen arasında olmayan, insanlar arasında oluşturulan bir sözleşmeden bahsetmiştir.

Bilinen ilk toplumsa sözleşme teorisi, Johannes Althusius tarafından ortaya konulmuştur. Kurumları beş ana kategoride toplamıştır ve her biri bir üst kurumu oluşturmuştur. Devlet eyaletlerin yönetiminden kurulmuştur. Buradaki sözleşme kişiler arasında bir sözleşme olmayıp kurumlar arasındaki ilişkiyi düzenleme maksatlıdır.

Hobbes'a kadar ki toplumsal sözleşme geleneği, kralın tirana dönüşmesi sonucu ona rıza verenlerin başkaldırması üzerine şekillenmiştir. Fakat Hobbes'un teorisi bireylerin sözleşmeyi iptal edemeyeceğini öne sürdü. Çünkü doğa durumu insanların can güvenliklerinin olmadığı bir durumdu ve kurulan devletin yaptığı eylemler bireylerin güvenliği içindi. Bireylerin sözleşmeyi iptal etme gibi bir hakları bulunmamaktaydı.

Locke ise biline toplumsal sözleşme geleneğini zirveye taşıdı. Hobbes'un aksine doğa durumu sınırsız özgürlüklerin yeri değildi. Doğal hukuk burayı yönetiyordu. Fakat yasaların uygulanma ihtiyacı ve bireylerin doğal hukuka aykırı davrandıklarında diğerlerini koruma ihtiyacı sonucu bireyler devleti kurdu. Bu devlet otoriter bir yönetim sergilediğinde sözleşme iptal edilebilirdi.

Rousseau, öte yandan, *general will* kavramında bireylerin rızasına ihtiyaç duyulduğunu fakat, sonrasındaki eylemlerde özel irade ile çarpıştığında toplumun çıkarının uygulanması için, uygulanma kısmının rızaya ihtiyaç duymadığını öne sürdü.

19. Yüzyıla gelindiğinde ise yönetim ve rıza arasındaki bağ zayıfladı. Hume'un toplumu hem çatışma hem işbirliği olarak görmesi, faydacılık akımını etkiledi ve Bentham ve Mill öncülüğünde, toplumsal sözleşme geleneği arka plana itildi. Bentham toplumsal sözleşmeyi bir kurgu olarak görmekte ve artık kurgu zamanının geride kaldığını öne sürdü. Artan ekonomik faaliyetler sonucu bu durumları regüle edecek yasalara ihtiyaç duyuldu ve yasaların gerekliliği sağladığı fayda temelinde incelendi. Öte yandan toplumsal sözleşme geleneği özellikle kral ve parlamento arasındaki güç savaşına yönelik bir şeydi ve en önemli konusu olan özel mülkiyet zaten legal olarak sağlanmıştı. Toplumsal sözleşme artan ekonomik ihtiyaçlara karşılık veremedi.

Fayda teorisi, oyun teorisini uygulamak için gerekli zemini yarattı. Bu yüzden toplumsal sözleşme geleneğinde, faydacılık okuluna kadar herhangi bir ölçülebilir araçtan bahsetmek imkansızdır. Faydacılık akımı kişiler arası bir karşılaştırma yöntemi sunmuştur. Bu yüzden klasik sözleşme teorisi, ilk kıstas olan ölçülebilirlik konusunda uygun bir zemin sağlayamamaktadır.

Öte yandan günümüz toplumsal sözleşme geleneği, dağılım konusuna odaklandığı için, fayda teorisini, kişiler arası bir ölçme aracı olarak kullanmıştır. Bu noktada konu günümüz toplumsal sözleşme geleneğine indirgenmiştir.

Rawls adalet kavramını kişiler üzerine kurmamıştır. Felsefe disiplini, adalet konusunda kişiler üzerinde odaklanır ve bu toplumca kabul görmüş bir kavram olmaktan çıkar ve hoşgöründen yoksundur. Bu yüzden Rawls, adalet kavramını toplumsal kurumlar üzerine uygulamaktadır.

Adil bir toplum eşit ve hür bireyler arasında adil bir toplumsal işbirliği sistemi kurar. Bu durum, toplumsal işbirliği kurallarının nasıl belirleneceği sorusunu gündeme getirmektedir.

Doğa durumunun klasik toplumsal sözleşme geleneğindeki yerinden farklı olarak, *original position* ve adalet kavramının prensipleri bir pazarlık durumunun sonucudur. bununla birlikte insanlar iki tane moral güve sahiptirler. Bunlardan ilki bir adalet duygusudur. Bir birey adalet ne olduğuna ulaşabilir. İkinci olarak ise kendi doğru anlayışına ulaşabilmesidir. Bir birey kendisi için bir doğru belirleyip bunun doğrultusunda ilerleyebilmektedir.

Cehalet peçesi, “başlangıç durumu” içerisindeki ana sınırlılıklardan bir tanesidir. Kendi moral güçlerine göre herkes bir doğru anlayışının peşinde koşabilecek ise, bu toplum içerisinde bir çatışmaya sebebiyet verir. Bunun önüne geçebilmek için Rawls, cehalet peçesini sunmaktadır.

Rawls, bu görüşünde Kant’tan etkilendiğini kabul etmektedir. Kant’ın göz önüne koyduğu rasyonalite ve makullük kavramları arasındaki farkı Rawls’da başlangıç durumunda ortaya koymuştur ve makullük kavramına ağırlık vermiştir. Cehalet peçesi

ile birlikte, bireyler makul bir adaletin prensiplerine ulaşmaktadırlar. Cehalet peçesi, bireylerin toplum içerisindeki yerini, konumunu ve maddi durumlarını görülmesini engeller. Bireyler, toplum içerisindeki yerlerini bilmediklerinde, makul olan adaletin yasalarına ulaşabilirler.

Cehalet peçesi dışsal bir etkenmiş gibi gözükebilir, fakat insanların sahip olduğu adalet kavramına ulaşma gücü, uygulanan cehalet peçesini içsel bir duruma sokmaktadır. Oyun teorisindeki bu tartışma modeli, dışsal bir etki ile yaratılmıştır, fakat Rawls bu durumu bireyin moral gücüne atıf da bulunarak aşmıştır.

Böyle bir durumdan iki tür adalet prensibi çıkmaktadır. İlk prensip eşitlik ilkesidir, ikinci prensibin ilk maddesi fırsat eşitliğini vurgular, ikinci madde ise tüm eşitsizliklerin toplumdaki en az avantajlı gruba göre yönetilmesidir (*difference principle* veya *maximin strateji*).

Rawls *maximin* stratejiyi öngörmektedir, fakat burada vurgulanmak istenen bir eşitsizliğe izin verildiğinde herkesin bundan faydalanmasıdır. Yani bir eşitsizlik sadece dezavantajlı grubun durumunu iyileştirirken, görece daha avantajlı olan kesimlerin durumunu kötüleştirmemelidir. Eşitsizlikler herkesin çıkarına olmalıdır (Rawls 1999).

Rawls herkesin isteyebileceği 4 temel özellikten bahsetmektedir. Bunlar: hak ve özgürlükler, gelir ve refah, öz-saygı ve fırsatlardır. Adaletin yasaları gereği, tüm hak ve özgürlükler eşit olarak dağıtılmak zorundadır. Fırsat eşitliği herkese aynı imkanda yarışma olanağı sunmaktadır. Bu durumda eşitsizliklerin uygulanacağı tek yer gelir ve refah kısmıdır. Bu yüzden, dezavantajlı demek, parasal anlamda diğer gruplardan daha az pay alan kısım demektir. bu aynı zamanda kişiler arası bir karşılaştırma yöntemi de sunmaktadır.

Rawls toplumsal sözleşme geleneğinin, faydacılık akımından daha yukarda yer aldığını göstermeye çalışmaktadır. Bu yüzden faydacılık akımına bir dizi eleştiri yöneltmiştir. İlki, faydacılık akımının teleolojik bir teori olmasıdır. Moral teorisinin iki bileşeni doğru ve iyidir. Teleolojik teoriler, doğru anlayışını iyi temelinde



şekillendirmişlerdir. İyi olan doğrudur. Bu durumda, doğru kavramı bireyler için bir sınırlılık değildir. Bu durumda rasyonalite kavramı tam olarak uygulanabilmektedir.

İkinci olarak, tam bir rasyonalite uygulanması sonucu, toplumdaki toplam refahı arttırabilmek için toplum içerisindeki bazı kesimlerden fedakarlık (*sacrificing*) yapması beklenmektedir. Rawls'un adalet kuramı ve iki yasası bu fedakarlığın önüne geçmeye çalışmaktadır.

Başlangıç durumunda, bireyler cehalet peçesi vasıtasıyla dezavantajlı olacak grubun payını arttıracak bir sistem seçerler. Bu durum bir pazarlık modelidir ve avantajlı grubun payı, dezavantajlı grubun payını arttırabilmek için düşürülür. Fakat sözleşme yapıldıktan sonra cehalet peçesi gibi bir sınırlılık bulunmamaktadır. Uygulanma kısmı bir toplumsal işbirliği üzerine kuruludur ve *difference principle* burada ilk görevinden daha farklı yol alır. Difference principle hiç bir zaman toplumsal işbirliği sürecinde bir grubun payını azaltmaz.

Bir adalet kavramı öncelikli olarak toplumun her kesimi tarafından açıkça bilinmelidir. Faydacılık akımı bu kıstası dolduramamıştır. Öte yandan difference principle, kimsenin feda arzu etmemektedir. Bu demek oluyor ki, toplumsal işbirliği sürecinde hiç kimseden parasal imkanlarından ve olası kazançlarından fedakarlık yapılması beklenmez. Öbür türlü toplumca bilinir olma kıstasına karşı gelecektir.

Ayrıca stabilite konusunda, rawls insanların toplumsal işbirliğini bozduklarında daha az kazanacaklarını öngörmektedir. Bu durumda toplumsal işbirliği avantajlı grubun parasal kaybını öngörmemektedir.

Bir diğer günümüz toplumsal sözleşmecisi Gauthier moralitenin, temeli konusunda bir kriz içerisinde olduğunu öne sürmektedir. Moral uygulamalar rasyonaliteye zıt görülmüştür ve bunu eleştirmektedir. Gauthier'e göre, bireyler kendi kazançlarını arttırabilmek için moral sınırlılıkları oluşturmuştur.

Doğa durumunda herkes kendi faydasını arttırmayı amaçlamaktadır. Bunun için önünde herhangi bir engel bulunmamaktadır. Bu kişiler, *straightforward maximizers* olarak geçer. Fakat bu durumda hiç kimse istediğini elde edemez ve kaos ortamı olur.

İnsanların sınırsız istekleri birbirlerinin isteklerine ters düşer. Bu yüzden bireyler, kendi faydalarını arttırabilmek için kendi imtiyazlarından feragat ederler. *Principle of Minimax Concession* Gauthier'in sözleşme teorisindeki ana sınırlılıktır.

Kişilerin kendi imtiyazlarından vazgeçmeleri sonucu *constrained maximizers* olan kişiler, kendi faydalarını arttırabilmek için moral davranışları kabul ederler.

Gauthier, sözleşmecî toplumu keyfî olmakla eleştirmektedir (arbitrary society). Keyfî toplum tam olarak rıza kavramı üzerine kurulmuştur ve bireylerin ihtiyaçlarına tam olarak karşılık veremez. Bu yüzden toplum keyfidir.

Ayrıca, optimal bir dağıtım mekanizmasını eleştirmektedir, çünkü bu optimal dağılım toplum içindeki bazı kesimlerin, avantajlı ya da dezavantajlı, doğal çıktıya göre kaybına sebebiyet vermektedir. Optimal dağılımda bazı gruplar için daha fazla faydayı barındıran başka bir dağılım bulunmaktadır. Keyfî olmayan toplum (non-arbitrary society) bireylere toplumsal işbirliği konusunda doğal çıktıdan daha fazla pay alacakları yönünde güvence verir.

Oyun teorisindeki en yüksek pay, bir kişinin işbirliği yaptığı ve bir kişinin anlaşmadan caydığı konumda cayan kişinin aldığı paydır. Gauthier, stabilizeyi ise, bir bireyin alabileceği maksimum faydayı vererek sağlamıştır. Bu durumda, toplumsal işbirliği, cayan kişinin payından bile daha fazla pay sağlamaktadır. Öbür türlü, Gauthier'in sisteminde stabilize söz konusu olmayacaktır.

Buchanan ise doğa durumunda doğanın bir ortak olan olduğunu ve herkesin bundan kendi yetenekleri elverdiğince faydalandığını öne sürmüştür. Diğer doğa durumu kavramlarında farklı olarak ise, Buchanan edinilen mal ve mülk saklandığını, bunların hem savunma hem de saldırı maksatlı kullanıldığını söylemiştir. Bireyler doğa durumunda doğal bir dengeye oluşurlar ve mal ve mülklerinin koruyabilmek için, belli bir kısmını feda etmeye hazırdırlar.

Buchanan doğa durumundan çıkışı oyun teorisi üzerinden açıklamıştır. Bu konumda işbirliğini getirecek olan insanların geri kalan mülklerini koruma isteğidir. Ayrıca bireyler bir an evvel bu aşamayı geçip daha fazlasını kazanma isteğindedirler.

Burada bahsedilen anayasal sözleşme bir kez yapılır, ardından ise *post-constitutional contract* diye geçen bireyler arasında yapılan ve her an tekrarlanan bir sözleşme türünden bahseder.

Toplumsal sözleşmenin temeli olan rıza kavramı, ikincil sözleşmelerde kendisini göstermektedir. Bu sözleşmede yer almak tamamen rızaya dayalıdır ve hiç bir zorlama söz konusu değildir. İkincil sözleşmeler ikili ilişkilerde rıza kavramında yürürken, öte yandan çok partili düzende bakıldığında, rıza kavramından (principle of unanimity) yavaş yavaş kopmalar başlar. Çünkü rıza kavramının olması demek, bireylerin çıktılar üzerinde bir söz sahibi olması demektir ve bu demokrasilerde işlem maliyetini ciddi derecede arttırmaktadır.

Buchanan bu noktada iki çeşit kopuştan bahsetmektedir. Rıza kuralından koşulsuz ayrılık (*Unconstrained departures from unanimity rules*) bireylere toplumsal işbirliğine girdiklerinde, zarara uğramalarını, yani girdikleri duruma göre daha az pay ile çıkmalarını öngörmektedir. demokratik bir toplumda buna izin verilmez çünkü otoriter bir dağılımdır. İkinci tür kopuş ise, (*indirect contract under less-than unanimity decision rules*) rıza kuralından koparak dolaylı olarak yapılan sözleşmedir. Bu kopuş türünde, bireyler toplumsal işbirliği sayesinde, işbirliğine girmedikleri duruma göre daha fazla paya sahip olacaklardır ve bu yüzden de girdikleri konuma göre paylarında bir azalma olmayacaktır. Bireyler toplumsal işbirliği ile, onuz kazandıklarından daha fazlasını kazanırlar.

Bu üç düşünürün kurmaya çalıştıkları toplumsal işbirliği, giren kişinin payını azaltmaktan ziyade, girdiği konuma göre arttırmasını öngörmektedir. öbür türlü, stabilite kavramı eksik kalmaktadır. Buradan yola çıkarak diyebiliriz ki, günümüz toplumsal sözleşme teorisinin sunmuş olduğu toplumsal işbirliği kavramı bir pazarlık modeli değildir.

Öte yandan, kurulan işbirliği tamamen içsel etkilerle kurulmuştur. Rawls'un cehalet peçesi, Gauthier'in maksimum beklentilerinin azaltılması prensibi ve Buchanan'ın kişilerin kendi arzularıyla mallarının belli bir kısmından vazgeçmesi

tamamen içsel sınırlılıklardır. Bu durumda günümüz toplumsal sözleşme teorileri ile oyun teorisinin öne sürdükleri toplumsal işbirliği farklı kavramlardır.

Bu araştırma da toplumsal sözleşme geleneğinin oyun teorisi üzerinden açıklanıp açıklanamayacağı incelenmiştir. Her iki disiplinde bir toplumsal işbirliği kurmaya çalıştığı için, toplumsal işbirliği kavramıyla kurmak istediklerinin aynı şey olup olmadığı araştırıldı. Oyun teorisinin bahsetmiş olduğu toplumsal işbirliğinin 3 ana özelliğine göre incelendi (ölçülebilirlik, işbirliğinin dışsal bir şekilde kurulmuş olması ve bu işbirliğinin bir pazarlık modeli olması).

Klasik toplumsal sözleşme teorisi ölçülebilirlik kistasını dolduramadığı için, konumuzu günümüze toplumsal sözleşme teorilerine indirgedik. Rawls, Gauthier ve Buchanan'a göre toplumsal işbirliği bir pazarlık modeli olmamakla birlikte, aksine, bireyler girdikleri konuma göre daha fazlasını kazanmalıdırlar. Özellikle de Gauthier için bu en yüksek payı dağıtan dağılım olması gerekmektedir, öbür türlü toplum keyfi davranmış olur.

İki farklı disiplinin sunmuş oldukları iki farklı toplumsal işbirliği modeli üzerinden yola çıkarak, toplumsal sözleşme geleneğine, oyun teorisi üzerinden bir açıklama anlayışı getirilemez. Her iki disiplinin yönleri tamamen farklıdır.

## B- TEZ FOTOKOPİSİ İZİN FORMU

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### YAZARIN

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Bölümü : SİYASET BİLİMİ VE KAMU YÖNETİMİ

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SOCIAL CONTRACT THEORY BY THEORY OF GAMES: THE CASES OF  
RAWLS, GAUTHIER AND BUCHANAN

**TEZİN TÜRÜ :** Yüksek Lisans ☒ Doktora ☐

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir. ☒
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir. ☐
3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz. ☐

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