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BEHAVIORAL ECONOMY AND PUBLIC STATE AIDS: WHY IRANIANS REFUSED TO GIVE UP ON GOVERNMENT SUBSIDY RECEIPT? (A MULTIPLE PRISONER'S DILEMMA GAME)

ECONOMÍA DEL COMPORTAMIENTO Y AYUDAS PÚBLICAS DEL ESTADO: ¿POR QUÉ LOS IRANÍES SE NEGARON A RENUNCIAR AL RECIBO DEL SUBSIDIO GUBERNAMENTAL? (UN JUEGO MÚLTIPLE DEL DILEMA DEL PRISIONERO)

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ABSTRACT

This article uses the game theory, more specifically multiple prisoner's dilemma game, to analyze why Iranians refused to give up on receiving public subsidies in April 2014, in spite of frequent requests of the government. Sample of study consists of two main groups: the ones who were not dependent on government subsidy but were applying for it; and the ones who did not depend either but had fraudulently pretended to depend on government subsidy. Some suggestions are presented such as to define chicken game and not prisoner's dilemma game as the main game.

KEYWORDS

Subsidy reform scheme, Prisoner's dilemma game, Refusal to give up on subsidy receipt, Lie, Iran

RESUMEN

Este artículo utiliza la teoría de juegos, más específicamente el juego múltiple del dilema del prisionero, para analizar por qué los iraníes se negaron a renunciar a recibir subsidios públicos en abril de 2014, a pesar de las frecuentes solicitudes del gobierno. La muestra de estudio consta de dos grupos principales: los que no dependían del subsidio del gobierno, pero que lo solicitaban; y los que tampoco dependían, pero habían fingido fraudulentamente depender del subsidio del gobierno. Se presentan algunas sugerencias, tales como definir el juego de la gallina y no el juego del dilema del prisionero como juego principal.

PALABRAS CLAVE

Esquema de reforma del subsidio, juego del dilema del prisionero, Negativa a renunciar al recibo del subsidio, Mentira, Irán

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INTRODUCTION

The 10th administration of the Islamic Republic of Iran started implementing a subsidy reform scheme in the form of monthly cash handouts (IRR 45,000 per person) in 2010. The second phase of the subsidy reform scheme stipulated that the government would continue paying cash handouts exclusively to needy people. To that effect, the 11th administration in April 2014 started registering applicants for government subsidy on the website www.refah.ir where every applicant was required to a. make clear whether or not he owned a residential unit; b. specify his household average income ranking among five groups starting from below IRR 6,000,000 million to over IRR 25,000,000 (the average income of all household members); c. fill out the forms only if he was in need; d. have supporting documents to produce if need be; e. accept to reconstitute cash received and pay fines equaling up to three times the sums received in case of fake information; and f. have his record recognized as the basis for financial capacity in receiving banking facilities.

The government initially expected deciles with higher incomes to not register as they had housing and high income to free up money to be paid to needy deciles. But in reality it did not happen². Of 77 million Iranians, only 2.4 million (3.1%) withdrew their application for government subsidy. In other words, if we consider each household to have four members and parents have a final say, approximately 1.2 million Iranian adults dropped their application for monthly cash handouts. Therefore, the problem may be stated as follows: "Why did a large segment of people, who were not dependent on government subsidy, register despite government expectations (at least 10 million withdrawals)?"

More precisely, the three following parameters were involved in the application of such large numbers of people for government subsidy.

First is economic deterioration and widespread poverty in Iranian society in the years leading to 2013 as opinion polls highlight people's discontent with the economic situation;

Second is government-people difference in the definition of wealth, specifically from the standpoint that ownership of a residential unit does not necessarily imply wealth and cannot indicate owner's affordability;

Third is "mental welfare" or people's self-assessment of their status of life (Ghaffari, 2014; 97) as people, despite running an honorable life, still consider themselves to depend on government subsidy. Such "excessive demand" and "irregular avarice and acquisitiveness", which must be distinguished from entrepreneurship, was a direct impact of wealth show in the society (television serials and films as well as bank prizes) and the previous administration's indiscreet pledge to give each Iranian household a 1,000-square meter villa. Therefore, one may have honestly declared

² There is evidence of lack of cooperation with the 10th administration, but no reliable data was found.

his income, but contrary to government's view, considers himself to depend on government subsidy³.

These three aspects provide only partial answer to the problem. The question in this article is not about withdrawal or non-withdrawal of application for government subsidy; rather, it targets a lie expressed by people regarding their ownership of housing and monthly salary of over IRR 25 million when registering on the website. There is not clear information available on data entered by people. However, 50% of applicants had reportedly declared not having a residential unit while according to the National Statistic Center in 2011, only 26.6% of Iranians live in rented houses and 70% of Iranians have their own private housing or live gratuitously in a residential unit which is not theirs. Furthermore, an MP, asked about people's registered data, had said: "According to available information, 90% of people have declared their monthly income below IRR 10 million, 60% of whom setting their income at below IRR 6 million."

On this basis, people may be classified under five categories:

- Affluent people who gave up on subsidy receipt
- Affluent people who registered but honestly declared their income data
- Affluent people who registered and provided fake data
- Needy people who registered
- And maybe needy people who gave up on subsidy receipt (This category may sound unreasonable and unlikely, but there is such record in Iranian society in the years leading to the Islamic Revolution and also during the 1980-1988 war with Iraq)

Here we ignore the second, fourth and fifth groups. The second group have honestly declared their income, but tried their chance for possible subsidy receipt without having any genuine expectation. The fourth and the fifth groups were really in need, and therefore they are not the subject of our study.

The main focus of our study is the third group, who must be distinguished from the first and the second groups, who registered despite government expectations but were honest. However, the third group did not declare their real income and claimed to receive below IRR 25 million and have no private housing. Economically

³ In a poll conducted by Iranian Student Polling Agency (ISPA) on April 28, 2014, 11.5 percent of respondents said they had withdrawn their application for monthly cash handouts, but the interesting point was that 7.8% said their registration failed. For 26.9% of the interviewees, the reason for registration was inflation and financial needs while another 26.9% highlighted people's overall needs. For 10%, the reason was officials' unnecessary expenditures and 5% said they did not trust government officials. Only 3.5% said their registration was for avarice and 60% agreed to the elimination of cash subsidy for high-income households. The important point is that six months before the poll was conducted, about 69% of respondents in Tehran had agreed to the elimination of subsidy for high-income families, which was down to 60% when the poll was conducted. It seems that after it was announced that in the second phase of subsidy reform plan, high-income families would be eliminated, some people who feared being placed on the list of high-incomes switched to opposition to the elimination of government subsidy for high-income households and consequently the number of proponents dropped. According to the poll, the self-styled low-income, middle-income and high-income individuals were not divided on agreement to the elimination of subsidy for high-income classes

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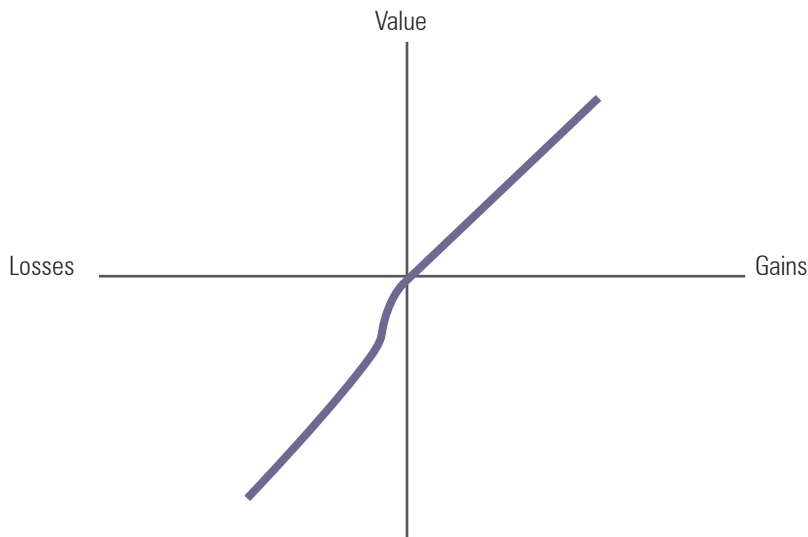
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speaking, the first group has suffered maximum loss and the third group has made maximum gain. Therefore, the main question in this article is to know "what has been the methodology of decision-making by the third group (affluent people with fake data) based on the game theory?"

METHOD

This research followed a behavioral economy approach. This approach values psychological effect of men on the decision they will make. Among various methods, the prospect theory that proposed by Kahneman and Tversky (1979) has found applicable to this research. In a study of risky choices, they modeled how people make decisions based on their valuation of losses and gains. Kahneman (2003) depicted the value function as figure 1 and proposes that this value function is "characterized by three features: 1) it is concave in the domain of losses, favoring risk aversion, 2) it is convex in the domain of losses, favoring risk seeking and 3) this function is sharply kinked at the reference point, and loss-averse steeper for losses than for gains by a factor." (page 1456)

Figure 1: A Schematic Value Function for Changes (Kahneman, 2003)



Source: Kahneman, D. (2003). Maps of bounded rationality: Psychology for behavioral economics. *American economic review*, 93(5), 1449-1475.

As it has been pointed out at the beginning of this paper, multiple prisoner's dilemma game has been used as the method to investigate the reasons of responses to refuse to give up. To have a correct understanding, it is necessary to know

the prediction of people on the possible benefit and loss of this decision. Such understanding is the foundation of the matrix of profit-loss on the basis of game theory, and will help to know the reasons of such decision.

To do this, an ethnographic research provides a ground to empathically catch the deep emotions and mindsets of sample of the research (Khajeheian, 2018). The researcher addresses the third group of people, the ones who lied about their economic situations to receive the direct financial aid. By use of two methods of available sampling and purposeful sampling, a number of such people were identified and get interviewed. Also the researcher, as a sociologist as well as an Iranian person who lives inside the society, used his experience and knowledge to systematically observe the people's behaviors as well as to interview with them on the periods of registration to collect the required data.

FINDINGS

Individual Economic Behavior Analysis Based on Profit-Loss Projections

Regardless of government behavior, some minor elements are involved in decision-making by people, which may be analyzed based on the model of rational choice and game theory. In this model, the assumption is that people assess profits and losses of every behavior in order to choose an option that would benefit them the most. In order to better understand people's behavior, first we produce a profit and loss account from the two behaviors of registration and non-registration for subsidy receipt. Table 1 is for those who applied for subsidy and Table 2 is for those who withdrew application for subsidy.

In general, within the framework of the classic game theory, i.e. prisoner's dilemma, individual decision-making based on others' behavior may be classified as follows in terms of cooperation and defection:

- **Punishment:** In this state, neither of subjects is cooperator and therefore both are deprived of advantages of cooperation and hence punished in one way or other. It is known as P or Dd (defection-defection). (Square 1)
- **Temptation:** In this stage, one subject is defector and the other is cooperator. From a personal interest and economic rationality standpoint, this option is the best for any subject because it does not cooperate while benefiting from advantages of cooperation. That is known as free-riding because it is always intertwined with temptation and seduction. It is known as T or Dc (defection-cooperation). (Square 2)
- **Sucker:** In this stage, one subject is cooperator but the other subject is defector and even misuses the cooperator. The first subject is accused of being sucker. Therefore, this option is known as S or Cd (cooperation-defection). (Square 3)
- **Reward:** In this stage, both subjects are cooperator and benefit from rewards of cooperation. This option is named R or Cc (cooperation-cooperation). (Square 4)

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Table 1. Profit and Loss Account (Registering for Subsidy)

Profit	Loss	People's Assessment of Loss
IRR 455,000 per person IRR 655,020,000 for four-person household (at least until next presidential election)	Commodity prices grow after more subsidies scrapped	Prices will grow under any circumstances.
	No use of public resources and formation of resources for development in Iran	<ul style="list-style-type: none"> • Mistrust of others' cooperation • Our money will never be spent on development. The government spends extravagantly every time it has more money.
	I will be labelled as needy or greedy.	<ul style="list-style-type: none"> • When money is valuable per se and not its acquisition this issue is not significant at all. • Half a loaf better than nothing. This cash handout is enough for alms.
	We will be fined and have to retribute the money.	Everyone is doing so and the government is not able to counter people.
	Lying	Studies show that religious issues rarely impact political and social life and people often justify their lies.
	Non-receipt of loan or economic facilities	It is very unlikely to be implemented, just like all other state decisions to take action against economically corrupt persons.

Table 2. Profit and Loss Account (Withdrawal of Application for Subsidy)

Loss	Profit	Assessment of Loss and Profit
Losing IRR 60 million for at least three years		Highly likely and even certain
Naivety and sucker feeling		<ul style="list-style-type: none"> • We just lose money. • The result is vendetta and opportunism in future occasions based on tit-for-tat strategy.
	Contribution to national development	<ul style="list-style-type: none"> • This money is practically squandered by managers. • The role of this money in national development is unclear and nobody knows where the saved money is spent⁴.
	Economic Incentives	No assessment provided by government
	Peace of mind	Such satisfaction wears out as feeling of naivety dominates.
	Honesty	Self-satisfaction and afterworld reward

Source: Authors' work

Although classic game theories often view a subject's strategic behavior in interaction with "another subject", in social games a subject may be seen in interaction with "other subjects". Therefore, in a multiple prisoner's dilemma where a subject is required to make decisions based on projections of decisions adopted by

⁴ A group of 24 artists, 80 economists and 24 sociologists (including author of this article) signed a letter to President Hassan Rouhani on March 3, 2014 (one month before registration), withdrawing their own application for subsidy and demanding that revenue from withdrawals be spent on education of children in underprivileged areas; alas, it did not happen.

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other subjects (and not a single subject), or specifically in our case, whether or not register in www.refah.ir, whether or not provide wrong data or not (applying or not applying for subsidy receipt), Table 3 shows profit and income statement.

Table 3. Relationship between Region and Business Performance

		Other Subjects' Behavior	
		Defection: Other subjects receive subsidy	Cooperation: Other subjects withdraw decision to receive subsidy
Subject's Behavior	Defection: receives subsidy	1 (punishment): bad economic conditions (shared loss) Dd	2(temptation): personal profit +improved economic conditions (shared profit) Dc
	Cooperation: withdraws from subsidy receipt	3(sucker): personal loss + bad economic conditions (shared loss) Cd	4(reward): improved economic conditions (shared profit) Cc

Source: Authors' work

Based on individual profit and loss calculations shown in Tables 1 and 2, a subject decides about registering or not for subsidy based on how other subjects behave. Preferences of a typical subject (Table 3) is about choosing to register for subsidy receipt while imagining that others are doing so (Square 1), in which case, the product is a collective loss because the government has to pay big sums in subsidy, which would inflict losses on everyone. But if this subject holds out the possibility that others may choose to withdraw their application for subsidy but deciding to register (Square 2), his assessment will be such that after other subjects' withdrawal, economic conditions will improve while he would be able to benefit individually from this collective profit, which means gaining profits bigger than others.

When a subject holding out the possibility of registration by others chooses to withdraw his application (Square 3) he will suffer collective loss because everyone has registered for subsidies. Furthermore, he suffers an individual loss because he is the only one to withdraw his application and has effectively lost subsidy. And finally if a subject withdraws application for subsidy and others do the same (Square 4), the released resources will be spent on national development and improving economic conditions. By ignoring a short-term profit, everyone will gain a bigger social profit.

Naturally the best option for everyone in the society would be a situation in which both a subject and others withdraw their application for subsidy receipt (Square 4), but in game theory-based elucidations if subjects consider themselves involved in the prisoner's dilemma, Square 4 will no longer be sustainable equilibrium and everyone based on the "free-riding" logic will seek a way to receive the subsidy while others will withdraw their application (Square 2). Under such circumstances, everyone will register to receive subsidy (Square 1). Of course that is not the worst result because alongside us, others have also suffered losses. That is a shared loss and continuation of bad economic conditions, known as social dilemma. The worse option will be when a subject thinks he has been fooled into withdrawing from receiving subsidy while everyone else has registered for subsidy receipt. It means that a subject prefers to be D no matter others are c or d. therefore, DC or Dd is the choice of a subject when others become defector. The result will be Dd, which implies collective loss. In other words, by applying prisoner's dilemma model and based on weak economic calculations, the dominant strategy will be the registration of majority of subjects in the society because all of them feel involved in a prisoner's dilemma and not other games in which cooperation is more likely.

This model is efficient on the grounds that it has been able to elucidate the behavior of majority of subjects in the society. In other words, the vast majority of people registered despite the government's projections. In the final days of the deadline, the registration rate was higher because the last digit in national ID numbers has a normal distribution. The upward trend in the final days of registration stemmed from a change every subject felt in other subjects' behavior, which convinced them to change their own behavior⁵. When the dominant atmosphere in the society is mutual trust and cooperation, others will be encouraged to be cooperator. But when they feel they suffer losses due to cooperation they become defector. (JavadiYeganeh, 2009)

The issue of shared profit and loss may be assessed under the title of "not losing the national asset", which means safeguarding the existence of a collective asset or a common source or non-deterioration of the economy and slow-paced inflation, or opportunity for investment in a better future for public good. In this context, giving up on profit may be seen as investment in the development of a public good.

Until this section, my focus was on why subjects registered instead of responding positively to the government's request and withdraw their application for subsidy. I also focused on economic calculations made by ordinary people who had registered because others had done so. Based on the dominant strategy in the prisoner's dilemma game, it would be in the interest of a subject to be defector (in this case, registering for subsidy receipt) regardless of how others behave.

This is part of behavioral corruption in the prisoner's dilemma conditions, which result in collective loss while everyone was seeking maximum profit.

⁵ There is no data available on the trend of registration, but this possibility is held out based on figures announced for withdrawal during the first days of registration (7% to 10%) because the final rate of withdrawal was 3% and therefore withdrawal accelerated.

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Why Some Chose to Lie

The issue that triggered a tumult in the society was not the fact that most subjects in the society registered to enjoy profits from subsidy receipt. In a market society, the dominant rationale is maximum profit and any expectation of sacrifice from people is misplaced. In a society where wealth is practically praised and money is a solution to all problems, economic corruption and acquisitiveness by government employees are unveiled on a daily basis and embezzlements are in the order of billions.

As I noted at the beginning of the article, when I speak about people in this study I do not mean those who need to receive government aid, rather I mean those who are considered as rich in conformity with government criteria and had been asked by the government to forego subsidies. Those rich persons who, despite the government's request, were still applying for subsidy were behaving like Square 2 and those who forwent subsidies were behaving like Square 3 in the foregoing table.

Avarice, excessive demand and seeking profit are not bad per se and are among characteristics of modern society in which, profits, jealousy and wrath have been rehabilitated in the form of wealth, political rivalry, violent sport matches and army. Profiteering, avarice and excessive demand have historical background in some segments of Iranian society. There is historical evidence on the extent of this issue.

Therefore, those who had assessed themselves as rich based on government criteria and registered for subsidy receipt and of course entered real income data did not do any wrong act although they showed their greed. They are rich but they claim to need subsidies; however they did not lie.

But the main issue is lying to gain profits. By lying we mean entering wrong data. We mean those who announced their income wrongly or refused to declare they owned a residential unit in the hope of making higher income⁶. Such an issue is expected to worry the moral conscience of the society because of the extent of such a big lie.

The subject of this article is not to elucidate the reasons of lying in the Iranian society. Some pundits (Mohaddesi, 2009) have divided lies into three categories: lying as social grease to please others and facilitate relations with others in social interactions; lying as a way to escape punishment; and lying as a trap and arm for gaining profits. Iranian society is replete with the first and the second category, also known as white lie. Nonetheless, the lie uttered with regard to subsidy receipt was of the third category; lying in expressing income data for the intention of bigger profits and receipt of subsidy.

Unfortunately lying is rife in Iranian society. Historical evidence is indicative of spread of lying due to insecurity and dictatorship. However, at the present time, most people believe that others are lying. In a recent opinion poll about social issues in Iran, which was conducted in April 2014 by the Iranian Students Polling Agency

⁶ As it was mentioned, 50% of applicants had reportedly declared not having a residential unit while according to the National Statistic Center in 2011, only 26.6% of Iranians live in rented houses and 70% of Iranians have their own private housing or live gratuitously in a residential unit which is not theirs. Furthermore, an MP, asked about people's registered data, had said: "According to available information, 90% of people have declared their monthly income below IRR 10 million, 60% of whom setting their income at below IRR 6 million."

(ISPA), affiliated with the Academic Center for Education, Culture and Research, the residents of Tehran had given the rate 4.21 (on 1-5 scale) for the spread of lying in the city, and 2.76 among their own relatives. The rates stood respectively at 4.11 and 2.76 for hypocrisy. And for the entire country, the rates were 3.56 and 2.52 for lying and 3.43 and 2.46 for hypocrisy.

Lying in Iran has historical roots, mainly emanating from long historical dictatorship and widespread insecurity. But according to the first narratives of Iranian society, it is concluded that this issue has been widespread. A famous prayer attributed to King Darius – “O Lord! Spare Persia Drought, Lie and Enemy Corps!” – shows lying was as harmful as drought and enemy troops at that time. Xenophon’s narrative of post-Cyrus time also bears proof to this issue. Dictatorial governments throughout Persian history have plundered people in a way or other. In addition to common ways of looting through war, pillage of sedentary people by tribes, levying up to 25% taxes and charging taxes for following years (which forced people to flee) and assigning people’s fate into the hands of rulers (by selling provincial governments and customs), there have been other ways of overcharging people particularly during the Qajar era. Some of them were the king’s presence at the residence of famous figures to receive rewards, the king’s presence in the bazaar and partnership with a tradesman in order to sell items to courtiers and merchants at much higher prices, seizure of decedent’s assets and confiscation of dissidents’ assets.

Such policies made people to lose their trust in the government and always bear in mind Molavi’s poem that “Never speak about these three thing: Your destination, your gold (wealth) and your religion.” Therefore, it would not be reasonable to expect people to enter their true economic data to deny themselves an economic profit, particularly when there is no control tool to verify data. If during registration for subsidy receipt, citizens were assured that their data would be verified they would not give wrong response to the question about their wealth status.

Meantime, based on Iranian dictatorship theory, “since all rights in Iran belong to government, so do all responsibilities” and citizens do not feel accountable about social issues. Furthermore, experience has shown that except for critical political cases, the government has always granted social and economic subsidies to people and never has anybody been punished for tax evasion or any other economic offense. Therefore, nobody is afraid of lying about his wealth status.

And of course another issue is that those who receive subsidy are not be considered as wealthy and in people’s mind, not being recognized as wealthy mean capital security.

Mistrust of government, coupled with avarice and lack of fear for government verification as well as interests of pretending to be poor, are micro-level reasons which caused so many Iranians to register for subsidy receipt.

And the conditions under which an ordinary actor had to choose to register or not stipulated a situation in which registration resulted in definite profit with low likelihood of loss while non-registration had likely low profit with definite loss. In other words, in such conditions, any ordinary person chose to register. Furthermore,

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the experienced lived from no firm action against lies at such a level tempted people to register and lie. Therefore, the government placed the people in a situation of "temptation for registration" and "temptation for lying in registration". When the conditions are conducive to avarice and lying, registration on such levels and lying on such scale are not unlikely.

The fallout of such a situation was the institutionalization of lies in the society with impunity for liars and the foregoers' feeling of loss in addition to economic losses on the government due to paying subsidy to affluent groups. That caused people to no longer cooperate with the government. Meantime, non-fulfillment of pledges made by the government for punishing liars would further prove the inefficiency of the government for people.

Another worrying issue was people's negligence of fatwas by religious leaders who had declared religiously forbidden any receipt of subsidy by affluent households. That would undermine the impact of edicts of supreme authority on religious matters, which should be studied independently.

Punishment of the Honest

But there is also a flipside of the coin; a significant number of people who forwent subsidy receipt. Under conditions where honesty is labelled as sucker, a segment of people preferred to tell the truth just for the sake of moral value of honesty. They numbered 2.5 million. Their motivations may be studied so that causes of their withdrawal would be known. The issue of equity is not new regarding analysis of cooperative behavior in the global literature of social sciences. In his article "But Taxpayers Do Cooperate!", Elffers (2000) concludes that equity (not on a large scale) is spreading at the global level, citing ultimatum and dictator games-based evidence.

Equity may be gauged in the ultimatum and dictator games. In the ultimatum game, there are two players; Player One (proposer) disposes of sum furnished by the examiner and is authorized to determine the share of Player Two (responder). The proposals are as follows: all the money for Player One, the bulk, a small segment or nothing of the money for Player One. The responder may accept the first proposal and the sum will be divided between them. He may not accept and neither of parties will gain any money. The dictator game is similar to the ultimatum game with the difference that Player Two has no right and time to accept Player One's proposal and the money will be imperatively divided based on Player One's desire. That is why Player One is called dictator. The dictator can give as much money he wants to Player Two; nothing more, nothing less.

For Jolls, Sunstein and Thaler (1998), in the ultimatum game in the real word, if the proposer suggests less than 20% of the total sum to the responder, the proposal will be rejected. The likelihood for the acceptance of proposal is between 20% and 30%. The predictable behavior of proposers is such that a significant segment of the total money will be divided, i.e. 40%-50%. This issue partly depends on the proposer's equity and partly depends on his fear for reprisal in the ultimatum game. Most

dictators in the dictator game give a minimum portion to Player Two. In other words, most dictators show a minimum level of equity although the money received from them by Player Two may not be as much as proposed in the ultimatum game.

In Iranian society, there have been religious recommendations for sacrifice and forsaking personal interests for divine satisfaction, and bravery. Although many people have not been faithful to such causes they have always liked to be labelled such and that is why the bulk of people have always responded positively to requests of sacrifice and bravery. Examples have already been experienced in the years leading to the Islamic Revolution and during the Iraq-Iran War. But there is also another example in contemporary history, which was Prime Minister Mohammad Mossadeq's appeal to people for loan at a time foreign governments, along with Britain, had imposed oil embargo on Iran. Iranians rushed to Mossadeq's help by buying bonds and these were some people who set records; Haj Mohammad Jafar Kazerouni bought bonds for IRR 10 million in Isfahan or Hassan Shamshiri, owner of Shamshiri kebab, purchased bonds for IRR 5 million.

Equity at such seemingly insignificant level is a big asset which must be used. At a time almost everyone is assured that others are lying and all economic calculations recommend that everyone register, this figure is significant and hopeful.

During the Iraq-Iran War, the families who sent their own children voluntarily to the frontline were not more numerous.

Iran's president heaped praise on sacrifices during registration in a televised interview, saying: "I also offer my gratitude to those who did not register or were not in need. Even though they were in need to some extent but they declined for the sake of more significant and national objectives. In coming months, it is possible for others to decline for the sake of more significant goals."

In our view, in addition to the 2.5 million, those who registered but honestly declared their income (no data is available on their number) are appreciable although subsidy payment to them must be cut.

CONCLUSION

As it was mentioned, at the level of individual actors, under conditions where no effort is made for rewarding equity, lying is not punished, the government has no intention of reviewing people's bank accounts and people hold the government responsible for everything, defining behavior as a "prisoner's dilemma" in which the dominant strategy i.e. defection is not unexpected and it has been observed people have practically chosen this option. However, the game structure might have changed into chicken game or tit-for-tat, whose dominant strategy is cooperation. Some of approaches that could change the output's structure and change the dominant strategy are as follows:

- Instead of asking people whether or not they are "in need", they should be asked to show sacrifice and give their share of subsidy to the needier groups despite their own needs.

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- Global experiences about change in behavior and development of stable behavior (Mackenzie Moore, 2012) indicate the significance of commitment in behavioral changes. Therefore, widespread announcements by state managers failed to convince people to change mind and decline subsidy receipt. Such announcements are made only within the framework of state organs' fulfillment of obligations and have no role in persuading people. There were sporadic cases of declining subsidy receipt. Announcements in which names have been singled out are very effective. Therefore, it is suggested that captivating notices be designed for declining subsidy receipt. Such signs would persuade people to decline subsidy because a person should not see conflict in his own behavior and belief. When he voluntarily bears a sign of decline he will transform it into action.
- Had the government cut the subsidy of affluent applicants who had honestly declared their wealth it would not have been labelled as sucker because of paying money to affluent groups amid economic woes. The next stage would be gradual identification of affluent people who registered but did not honestly declare their wealth. Failure to cut subsidy payment to this group equals spread of lying and will make those who honestly declared their wealth or bravely declined hopeless. Furthermore, the government should fulfill its pledge of forcing liars to restitute subsidy sums and pay fines equaling three times the subsidy value. Elimination can be gradual and the public opinion in the society will definitely not oppose cutting subsidy payment to affluent groups and there is nothing for the government to worry about.
- The government regularly reiterates that it does not investigate people's banking accounts. That is while modern governments have been established based on the rationale that the entire society would be fully submissive to the government. Everyone is equally powerless before the government and the government controls the body and the spirit of people. A new theory developed by John Luck stripped the government of control over people's assets; however, the government remains the sole legitimate authority in the society. Based on such logic, the government is required to do its utmost for safeguarding security. It has to control windfalls and hold their proprietors accountable in order to maintain economic health in the society. The opponents of the theory of government's supervision over people's assets will make maximum gain from economic anarchy. Therefore, the process of verifying people's declarations must be implemented in order to bring economic and psychological security back to the society.

This is while supervising people's accounts is common across the globe. Even US state officers regularly and unexpectedly refer to the residence of applicants of food stamp, enter in and control their belongings to see whether or not they deserve such government aid.

Therefore, the current situation in Iran shows defection is dominant. The situation cannot change by recommending equity and making publicity campaign. The only solution to improving the situation is to change the structure in favor of cooperation.

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REFERENCES

- Athenaeus of Naucratis, *Deipnosophistai*, translated by Jalal Khaleqi Motlaq (2007). Tehran: Islamic Encyclopedia Center.
- Chardin, J. (1686). *Journal du voyage du Chevalier Chardin en Perse* (five volumes), translated by Eqbal Yaghmaei, Tehran: Toos
- Elffers, H. (2000). "But Taxpayers Do Cooperate!". In: Van Vugt, M. & M. Snyder & T. R. Tyler & A. Biel (eds.). *Cooperation in Modern Society: Promoting The Welfare of Communities, States and Organizations*. London: Routledge. pp. 184-194.
- Friedman, M; Friedman, Rose (1988). *Free to Choose*, translated by Hossein Hakimzadeh Jahromi. Tehran: Ed. Parsi
- Ghaffari, Gholam Reza (2014), "Socio-Mental Preferences and Social Discipline", *Gozarsh-e Vaziat-e Ejtmaei-e Keshvar; Ketab-e Chekideha* (A Report on Social Conditions; Book of Abstracts). Tehran: State Social Council, pp. 95-100
- Hashemi, Sarvosadat (2007), *Nazarsanji-e Telefoni az Mardom-e Tehran Darbare-ye Doroughgooyee* (Phone Interview With Tehran Residents About Lying), Hamshahri Media Studies and Research Center
- Hirschman, Albert, *The Passions and the Interests; Political Arguments for Capitalism before Its Triumph*, translated by Mohammad Maljoo (2000). Tehran: Ed. Shirazeh
- Javadi Yeganeh, Mohammad Reza (2009), "Simulation: a Method to Study Social Behaviors", *Motaleat-e Ejtmaei-e Iran* (Iran Social Studies), vol. 4, pp. 132-160
- Javadi Yeganeh, Mohammad Reza (2008), "Sociological Approach in Reasonable Choice Theory", *Rahbord Farhang* (Cultural Strategy), vol. 3, pp. 33-64
- Jolls, Christine & Cass R. Sunstein & Richard H. Thaler (1998) "A Behavioral Approach to Law and Economics" 50 *Stanford Law Review*. 1471-1550.

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Kahneman, D. (2003). Maps of bounded rationality: Psychology for behavioral economics. *American economic review*, 93(5), 1449-1475.

Kahneman, D., & Tversky, A. (1979). pProspect Theory: An Analysis of Decisions under Risk, qEconometrica. *March*, 47(2), 2635291.

Karl Brugsch, Heinrich; *Im lande der Sonne* (1995), translated by Majid Jalilvand. Tehran: Ed. Markaz

Khajeheian, Datis. (2018). Enterprise Social Media: Ethnographic Research on Communication in Entrepreneurial Teams. *International Journal of E-Services and Mobile Applications (IJESMA)*, 10(1), 34-46.

Malcolm, Sir John (1815), *The History of Persia*, translated by Mirza Esmaeil Heyrat (two volumes) (2001). Tehran: Ed. Afsoon, pp. 656-877

McKenzie-Mohr, Doug; Smith, William: *Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing*, translated by Mohammad Reza Javadi Yeganeh and Ali Reza Sadeqi (2013), Tehran: Ed. Elm

Mohadesi, Hassan (2009): *Barresi-e Vaziat-e Sedaqat-e Omoumi va Rahkarhay-e Erteqay-e An* (Review of General Situation of Honesty and Ways to Improve It): Secretariat of Supreme Council of Cultural Revolution. *In persian*

Trezel, Camille-Alphonse, *Voyage en Arménie et en Perse, fait dans les années 1805 et 1806*, par P.-Amédée Jaubert, Paris, Pélicier et Neveu, 1821 translated by Abbas Eqbal Ashtiani (1982), Tehran: Ed. Farhangsara (Yasavoli)

Xenophon: *Expedition with Cyrus*, translated by Reza Mashayekhi (1963). Tehran: Translation and Printing Center

Zonis, Marvoïn, *The Political Elite of Iran*, translated by Parviz Salehi and Soleyman Aminzadeh and Zahra Labadi (2008). Tehran: Ed. Chapakhsh