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“Si él lo necesita”: Gypsy fairness in Vallecas*

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Abstract

“*Si él lo necesita*” (if he really needs it) was the most common argument given by the subjects who accepted the zero offer in the ultimatum game during experiments were conducted among illiterate (adult) gypsies in Vallecas, Madrid. Interestingly the acceptance of the zero offer was not a rare case but, in contrast, it was the modal value. This is even more remarkable if we consider that the 97% of the subjects proposed the equal split.

Keywords: gypsies, fairness, social welfare, strategy method ultimatum game, bargaining.

JEL Class.: D63, D64, C93, J15.

1 Introduction

Questions regarding the foundations of human sociality have long been the topic of social science research. Many authors from varying disciplines have studied the driving forces behind individuals' social behavior (see for example Bateson and Shaw [3], Camerer [8], Kagel and Roth [17] and Rabin [20]). Interestingly, experimental evidence suggests that the canonical assumption of selfishness does not accurately represent individual behavior (see Henrich [15] and Henrich *et al.* [16]). Bolton and Ockenfelds [4], Charness and Rabin [9], Fehr and Schmidt [10] or Rabin [19] propose new models in which equity, reciprocity or fairness substitute the standard selfish behavior.

In all human societies a wide range of social phenomena is governed by sets of norms that prescribe appropriate behaviors and sanction inappropriate conduct. All populations have institutional rules which promote sharing or fair transactions, albeit these vary according to the degree in which they are stressed and the boundaries within which they apply (see Barth [2]). Authors such as Henrich & Ensminger [14] or Henrich *et al.* [16] have studied the influence that social context has on the behavior of individuals. Concretely, they carry out an exhaustive analysis of this behavior in what they call “small societies” and compare behavior among different cultures.

The aim of this paper is to study concepts of fairness or equity in a specific ethnic group: non-integrated Spanish gypsies. It should be noted that our objective is to analyze the above concepts solely within and among gypsies.¹

This paper is of interest for a number of reasons: (i) It is a continuation of previous research in a very interesting population: Spanish gypsies. Although the gypsy population in Spain is quite large, they have received very little attention in economic terms due to the fact that they are marginalized. Moreover they constitute an economic problem for the Spanish government.

(ii) The views held by Spaniards about gypsies is contradictory. Generally, non-gypsy citizens have a very negative concept about this community. *The Spanish Racial Discrimination Report* (see Díez-Nicolás [7]) shows that a large percentage of Spaniards reject gypsies (nearly 90%). Many reports² reveal that the majority of Spanish society holds negative stereotypes regarding the gypsy community. Some of these stereotypes such as the gypsies'

¹We only compare intra-gypsy behaviour in an attempt to avoid such problems as racism, apprehension or feelings of unsafety and mistrust that may arise when the game is played against another ethnic group.

²See for example the FSGG [11] report of 2004.

tendency to live on the fringes of mainstream society or to be asocial, racist and so on are of a “permanent” kind (they have existed for a long time) . Other stereotypes can be considered to be "temporary" (for example, their involvement with drug trafficking). But not everything that gypsies do is deemed negative. Indeed, there are some ”positive” characteristics associated with them, namely their artistic skills such as flamenco dancing or their extraordinarily strong family ties and group solidarity.

The latter is of particular interest to us here given that the results obtained from our Strategic Method Ultimatum Game show that gypsies share the money and are willing to accept very unfair offers. In other words, they are inclined to share their profits with other people who belong to their group.

(iii) Finally, this paper continues cross-cultural research in western countries. Specifically, we introduce the CORE package in Spain. This type of experiment has typically been conducted in underdeveloped countries of Asia, South-America or Africa. In contrast, we reproduce part of the CORE package in Spain; a developed country which is a member of both the EU and the OECD. Hence, it is very interesting to analyze behavior in a “small community” living within the context of a European country.

In sum, this paper examines the Strategy Method Ultimatum Game played among gypsies in Vallecas. Our aim is to study two measurements of behavior: (first) **the sense of fairness (or altruism) and the fear of direct punishment and** (second) **direct punishment (sanctions for inappropriate or unfair behaviors)**. In Section 2 the experimental design and procedures are described. Some features of the population are examined in Section 3, while results are shown in Section 4. Finally the analysis is enlarged upon in Section 5 and conclusions are drawn in Section 6.

2 Experimental design & procedures

Design

The research was conducted following part of the CORE package guidelines from the Cross-Cultural Analysis (see Henrich and Ensminger [14]). Specifically we used the Strategy Method Ultimatum Game (SMUG hereafter) as well as an extensive survey included in that package. The standard SMUG is as follows: players A and B are allotted a sum of money. Player A has to decide how to divide it between himself and Player B. Before hearing the

offer, Player B must set an “acceptable offer range”. If Player A’s offer falls within this range, Player B receives the offer and Player A gets the remainder. If A’s offer is outside this range, neither player receives anything (the money disappears). Experimental evidence shows that this offer range takes the form of a minimum acceptable offer (hereafter MAO; see Gurven [13]), although in some groups individuals will reject even large offers.

Observe that we obtain two different measures of individual behavior: from player B’s responses (specifically when they are in MAO form) we can infer how willing individuals are to punish others’ unfairness at a cost to themselves. On the other hand, from player A’s behavior we can obtain a combination of preferences for fairness or fear of direct punishment (strategic behavior). From post-game interviews we can determine whether or not player A’s response is given out of a pure sense of fairness.

As we will see below (see table 1), the survey explores several individual attributes such as personal features, labor issues, social integration and so on. The survey includes several questions related to the game that players are asked to answer after playing. Specifically:

- Proposers were asked to answer the following questions: (#1) ¿Qué le recordó el juego del ultimátum con relación a la vida real? (Did the ultimatum game remind you of anything related to real life?) (#2) ¿Por qué hizo esa asignación? ¿Por qué no más, o menos? (Why did you give that amount? Why not less or more?) (#3) ¿Cree que la mayoría de gente habría aceptado menos? (Do you think most people would have given less?)
- Recipients were also asked about the previous item (#1) and: (#2) ¿Cómo se hubiera sentido si hubiese recibido una oferta de 0€ del Jugador 1? (How would you have felt if you had received an offer of 0€ from Player 1?); (#3) ¿Cómo se hubiera sentido si hubiera recibido una oferta de 10€? (How would you have felt if you had received an offer of 10€?),

In order to gain further knowledge about this particular population we enlarged upon the standard procedure in two ways: (*i*) Once the subjects had answered question 1 to 3 we added another item: they were asked to play the opposite role (hypothetically). The proposers were then asked about acceptance rates and the recipients were asked about divisions; (*ii*) At the

end of the experiment –once the subjects had completed both the experiment and the whole CORE survey– they were asked (in a hypothetical situation) about inequity aversion using the device proposed by Kroll & Davidovich [18], that is, subjects were asked to choose between a equal (but unknown) premium and an individual (but unknown) premium. As we will see below, *i* plus *ii* provide us with some interesting insight into the question at hand.

Procedures

The entire experiment was conducted in July 2004 at the “Asociación Barró” School for Adult Education. Run by nuns, the main goal of this school is to teach illiterate adults to read and write. The school is located in Vallecas, one of the poorest districts on the outskirts of Madrid, Spain.

Participants were students from the school who came voluntarily the day of the experiment. Although the school is located in Vallecas, the subjects were from Santa Catalina, a shanty town outside Madrid. They were invited to “participate in an investigation in which they could earn some money”. The experiment was conducted by the 3 authors³ plus 6 volunteers who helped to do the survey. It was conducted as follows.

- First, all the subjects received the instructions orally in one room. Each subject also received the 3€ show-up fee and was assigned an identification number.
- Second, the subjects were randomly asked one by one to go to another room where PBG conducted personal interviews which included the game. Real money was placed on the table to explain each case to both recipients and proposers. The examples were repeated until they were fully understood by the subjects.
- Third, subjects went to another room where AD, with the help of the 6 volunteers, conducted the full CORE survey.
- Fourth, RCR performed the inequity aversion device subject by subject at the back of the room.

³Pablo Brañas-Garza (PBG) read the instructions and conducted the SMUG individual by individual, Ramón Cobo-Reyes (RCR) ran the *inequity aversion device*, while Almudena Dominguez (AD) coordinated the whole survey with the help of the 5 volunteers.

- Last, PBG did the matching and then each subject received the money privately in a sealed envelope.

Given that we were more interested in getting data from the recipients rather than the proposers, we decided to use a simple mechanism: all subjects with an identification number that was a multiple of 3 would be proposers, while the remaining players would be recipients. To facilitate the matching process, we used the following rules: the two numbers⁴ following each multiple of 3 would be the recipients of its previous multiple. Hence subjects #4 and #5 were the recipients of #3; subjects #7 and 8 were the recipients of #6 and so on). However for the proposer to earn the money, his only relevant partner was the following subject (i.e. #4 for #3, #16 for #15, etc.).

The experiment lasted more than an hour. The subjects' average and modal earnings were 5€ plus 3€ for the show-up fee. This amount of money is approximately equal to the daily salary they earn selling scrap metal (the main occupation of about 45% of the population).

3 Study population: Gypsies living in slums outside Madrid

There are approximately 600,000 gypsies currently living in Spain. The largest gypsy community, some 300,000 gypsies, or half of the entire population in Spain, live in the region of Andalusia . Let us now describe some social norms and features that distinguish this ethnic group.

Gypsy society as a whole is structured around extended family units. Individuals belong to a single unit. Gypsy society has no written rules. Instead, the entire set of social norms is transmitted orally from generation to generation. Thus the older members play a key role in the society and are looked up to by the whole population who hold their experience and knowledge in high esteem. These subjects are considered “references” for the community. Moreover, the older members hold authority over the younger members of the society as do men over women.

Three basic social rules govern gypsy society:

⁴Obviously, in the case of subject number 2 there is only one number which is paired with 1. Of course, these devices were not public information. We also used subject 26 as a proposer to introduce some “noise”.

- **solidarity among gypsies.** This can be classified into two main obligations: hospitality and aiding others; including giving financial support to other gypsies.
- freedom as a natural condition of the people.
- symbolism as a representative feature of gypsy culture. This includes flamenco, which is considered to be an expression of gypsy lifestyle.

The points above are applicable to the entire population of gypsies living in Spain. We shall now describe some features of the population that regularly attend classes at “Asociación Barró”.⁵

The gypsies who attend the school are, on the whole, very young. Few are older than 65. The family constitutes the basis of their educational, economic and social structure and is normally larger in size than non-gypsy families. Although most of the students at “Asociación Barró” are originally from Santa Catalina (a slum outside Madrid), many of them have benefitted from subsidized housing provided by the autonomous government of Madrid and have moved out of the area. Others, however, have remained in the Santa Catalina settlement or are squatters.

Although gypsy children generally receive schooling, absenteeism and dropout rates are very high⁶. These alarming figures can be explained by the phenomenon of "exclusion" occurring in the south-east area of Madrid where the Asociación Barró is located and where there is a large concentration of pupils with learning difficulties.

More than 50% of the adult population is illiterate. Thus many of them, especially women and older members, do not have stable employment and must do unskilled work such as selling flowers, fruits and vegetables or clothes in the marketplace or collecting and selling scrap metal, etc... Although gypsies have become the target of a public program to improve their precarious situation, their relationship with the State is a complex one. While in some cases they will accept public protection such as housing (aid that they become very dependent upon), in most cases they prefer to have nothing to do with public authorities, especially the police.

⁵The following 3 paragraphs summarize an interview conducted with Blanca González, one of the volunteers who works in Barró.

⁶The Plan against Social Exclusion in Madrid reports rates of absenteeism to be as high as 48.7% during the period of compulsory education.

Their relationship with other races is also complicated. The gypsies hold many stereotypes and largely reject people of other races such as Arabs or Orientals. This is probably due to a certain amount of competitiveness between the poorest sectors of society. Their relationship with *payos* (non-gypsy Spaniards) has historically been one of clashes and confrontations. To quote Blanca: “*They don’t see eye to eye*”, “*They have always turned their backs on one another*”.

From the CORE questionnaire we selected the most 40 relevant items for urban populations in Western countries. Table 1a and 1b summarize the main findings for the 38 subjects who participated in the experiment (M* means missing data). Table 1a below shows the percentage of the population having the selected attribute.

Insert table 1a about here

Table 1b analyzes the average of some numerical attributes.

Insert table 1b about here

As shown, 73% of the population is married and 86% has children. The mean number of children per family is close to 3, even though the mean age of the population is very low (28.79). 93% of population has some level of education. While this percentage may seem quite high, it is interesting to note that gypsies consider learning to read and write an indicator of having achieved a certain educational level.

On the whole, the population is very poor. Only 1 out of 38 subjects is a homeowner and none owns property. The existing evidence suggests that home ownership provides people an anchor in the community they would not otherwise have (see Glaeser & Sacerdote [12]). This anchor motivates individuals to be more cooperative, generous and fair. Indeed, our results show that although the subjects do not own a house, they behave in a very altruistic way.

Cooperative institutions. 15% of the population does volunteer work in an association and dedicates about 1 hour per week on average to this activity. 24% are club members and spend around 5 hours per week at their club.

Networking. We observed that the mean number of guests that come for lunch in gypsy homes is higher than 5⁷. This finding, together with the fact that the mean number of siblings is 6 (a very high number compared to the overall Spanish mean of 2.7), may be of great help in understanding the “sharing” behavior shown by the players.

4 Results

Recall that the players are going to play two different roles. The results of the regular task (i.e. the standard SMUG) are summarized in column 2 of Tables 2 and 3. In column 4 of Tables 2 and 3 we show the results of the role reversal in which individuals switch their roles (but only in a hypothetical way), that is, former proposers play the game as recipients and former recipients play the role of proposers. Finally we analyze if both samples arise from the same population. The results after merging the samples are shown in Column 6 of Tables 2 and 3.

Proposed divisions and acceptance rates

Column 2 in Table 2 shows the divisions proposed by the 14 gypsy subjects who played as player A in the SMUG.

Insert table 2 about here

The result is clear: proposers do not take advantage of their position and only one of them proposes an unfair division. What is even more surprising is the overwhelming percentage of proposers who offered an equal split: more than 90%. To sum up:

Result 1: The percentage of subjects offering an equal split is overwhelming (93%).

⁷In Blanca’s words: They prefer “to live day by day”. Proof of this lies in the fact that gypsies always cook for many people (more than what is needed for the inhabitants of their household). If food is not finished, it is given away and never kept. This can probably be explained by their nomad ancestry.

Why did they choose the equal split? Recall that we asked the subjects some questions during the experiment. Item #2 inquired as to why subjects made such a division. The only subject who did not choose the equal split did not give an answer. The remaining subjects gave such explanations as *fairness* (11 out of 14 subjects) and *strategic behavior*⁸ (2 individuals).

In contrast, item #1 asked subjects if they associate their role in the SMUG with any real situation: 4 of them considered their role to be unfair; 3 mentioned sharing rules, whereas the remaining subjects made reference to gambling (3), TV programs (1) or business dealings (3).

Hence, we can conclude that *fairness motivates equal splits*.

Column 2 in Table 3 shows the Minimum Acceptable Offer (MAO) for the 24 gypsies who played as recipients.

Insert table 3 about here

It is striking to note that about 30% of the population accepted any amount greater than 1€, while it is even more surprising that 25% of the subjects accepted the zero offer.

The explanations that these 6 subjects gave regarding their behavior are very interesting indeed. They said that they accepted a zero offer because if the proposer did not share, it was because he or she needed the money. They also remarked that it was better for the proposer to keep the entire amount of money than to lose it all!

Result 2: Driven by solidarity and utilitarian criteria, 25% of the subjects accepted the zero offer.

Let us highlight some of the answers given by subjects during the experiments. Item #1: 10 subjects (out of 24) did not associate their role in the SMUG with any real situation; 4 considered their role to be unfair; 3 mentioned sharing rules whereas the remaining subjects made reference to gambling (3), TV programs (1) or business dealings (3).

Thirteen (out of 24) subjects admitted that they would not be happy with the zero offer (item #2), while only one considered such an offer to be an offensive division. In contrast, only 7 subjects stated that they would be happy if the proposers gave them the whole endowment (item #3) and 10 of them said that they did not like this advantageous division.

⁸One of them admitted: “Everybody here will accept an equal split; in contrast, to use another more advantageous division would be very risky”.

Role reversal

As we mentioned above, subjects were asked to hypothetically play the opposite role. Column 4 in Table 2 shows the offers proposed by former recipients, while the same column in Table 3 shows the acceptance rates for former proposers.

We have used non-parametric tests to check if both samples arise from the same population. Fortunately, the answer is yes for both the divisions [Mann–Whitney ($z = 1.30, p = 0.73$) and Kolmogorov–Smirnov tests ($z = 0.21, p = 1$) do not reject] and the acceptance rates [neither the Mann–Whitney ($z = -0.77, p = 0.46$) nor the Kolmogorov–Smirnov tests ($z = 0.84, p = 0.47$) reject].

Data are drawn from the same population. Hence, we are able to merge samples. Column 6 in both Table 2 and Table 3 respectively shows the population values for divisions and acceptance rates.

While the percentage of subjects offering an equal split is even larger than in the original case, the most striking result is that after merging samples, zero became the modal of acceptance rate!

Hence we can conclude that fairness criteria is not symmetrically distributed: while there is a large percentage of subjects accepting very unfair, even zero, offers, the percentage of subjects proposing the equal split is overwhelming. To summarize:

Result 3(main): The equal split is not solely the modal proposal, but is used by 97% of the subjects. In contrast, gypsies are willing to accept completely unfair offers including the minimum modal offer of zero.

The former means that subjects are completely fair when they are asked to share some amount of money. However, the latter illustrates that they are also willing to accept completely unfair divisions!

5 Further analysis

What determines MAO?

We used both contingent and non-parametric analyses to check if some of the previous socioeconomic variables reported in Table 1 may explain possible variations in the acceptance rate. Recall that this analysis has no bearing on

the proposed division because all 97% subjects proposed the same distribution: 50-50. The results are summarized as follows:

- Educational level, economic variables (home ownership, labor conditions, etc.), religiosity, family characteristics (number of siblings, eating customs), social integration (friends invited home, trust, volunteer work) do not explain MAO.
- Interestingly, inequity aversion (measured by the Kroll & Davidovich [18] device) does not explain this individual threshold.
- However, both club membership and gender have a significant effect on the minimum accepted offer.

Let us first analyze the effect of *club membership*. Table 4 shows the main descriptive statistics of subjects who are club members and those who are not. While the Mann–Whitney ($z = -1.70, p = 0.08$) test rejects the null for $\alpha = 8\%$, the Kolmogorov–Smirnov tests ($z = 1.13, p = 0.15$) do not. Therefore we do not have strong evidence of differences in behavior as a result of club membership. In fact, subjects who do not belong to any club are willing to accept smaller offers. Specifically, club membership doubles the fairness criteria. This result seems to be contra intuitive.

Insert table 4 about here

Let us now turn to the question of *gender effect*. Table 4 above also gives the main descriptive statistics for both males and females. Once more the Mann–Whitney ($z = -1.83, p = 0.06$) test rejects for $\alpha = 6\%$, while the Kolmogorov–Smirnov tests do not ($z = 1.03, p = 0.23$). Hence our statistical evidence is not strong. Interestingly, males are willing to accept reduced offers, while the fairness criteria for females is twice that of males. Figure 1 below shows these discrepancies.

Insert figure 1 about here

Clearly, the theoretical prediction (the zero acceptance) holds true for half of the males (6 out of 11), while it is not true for the majority of females (18 out of 23 claim positive values). Specifically, the modal value for females changes to 2€. In sum:

Result 4: Both club membership and female gender double fairness criteria.

Inequity aversion among gypsies

Prior to concluding our paper, we would like to examine some of the comments made by the players when they performed the mechanism proposed by Kroll & Davidovich [18]. Although these will not be studied from a statistical viewpoint, we felt them to be particularly illustrative of this population.

For those subjects who preferred to try their own lottery (51% of 37 subjects, 1 missing), that is from those individuals who are not inequity averse, we extracted the following remarks:

- “*mi suerte es mia ¿no?*” (my luck is mine, isn’t it?)
- “*lo mejor es que cada uno a su suerte ¿no?*” (the best thing is for each of us to try our own luck, don’t you think?)
- “*sería injusto que, porque ella tuviese mala suerte, los demás compañeros tuviesen mala suerte también*” (it wouldn’t be fair if just because she’s unlucky the rest of us have to be unlucky, too.).

In contrast, those subjects who preferred to get the same unknown outcome as the rest of the population (that is, inequity averse subjects) we observe:

- “*mejor que todos lo mismo, ¿no?*” (it’s better if we all get the same, isn’t it?)
- “*mejor todos los mismo y así no nos enfadamos entre nosotros, porque si uno se lleva más, el otro se puede enfadar*” (It’s better if we all get the same. That way nobody will get mad because if somebody gets more, the others could get angry.)

Note that these subjects all said “no?” at the end of the sentence. They did this to seek our approval, to simply try to be nice or to get the right answer. Although these remarks are merely illustrative and the survey was hypothetical, we thought it would be of interest to include them in this section of the paper.

6 Discussion and concluding remarks

Although our results are quite remarkable, it is important to note that the percentage of subjects choosing anomalous values is very low. Bahry and Wilson [1] hypothesize that “atypical intervals of rejection” may be due to fairness or confusion. In our study there are a very low number of possible confused subjects (2 recipients + 2 role-reversal recipients out of 38 individuals). Given the hyper-fair behavior we observed in 97% of the cases, we can assume that our subjects were not confused.

We observed two contradictory behaviors in the two different decisions that the subjects took. When individuals had to decide how to divide the money, they proposed an equal split. This decision is due to the individuals’ sense of fairness; a question that has been studied by authors such as Fehr and Schmidt [10] or Bolton and Ockenfels [4].

In contrast, when individuals have to say the minimum value they accept, the modal acceptance is zero. Given that this division of the money is not fair, the subjects’ decision is not taken out of a sense of fairness.

In our opinion, these two contradictory behaviors can be explained by a sense of solidarity and social welfare.

In the first decision, the subjects proposed an equal division of the money. The reason for this is that they are morally obliged to distribute the money in a **fair** manner. This sense of morality could be due to the fact that they have a large number of siblings, that many guests are invited for lunch everyday and that many of them do volunteer work (see Table 1 for an overview of the population features).

In the second case, individual decisions are not driven by the same sense of fairness. Using experimental individuals’ arguments we find a possible explanation for this behavior. Sentences such as “if he needs the money...” or “he is more needy than me” lead us to the following conjecture: *subjects will accept even the most disadvantageous distribution because they believe that if another subject does not respect the “sharing rule” it is because he or she is more needy.*

Hence, as our survey pointed out, they do not feel offended. They just think that if the proposer offers zero it is because he needs the money. Therefore they should accept it!

Arguments such as solidarity also come into play. Brañas-Garza [5] believes that solidarity will be greater in cases where the counterpart is more needy. Note that when subjects consider that their partners really need the

money, the only way to ensure that the other individual will receive the payment is by choosing the interval $[0,10]$. In this case, the subject will get the amount the other does not need. In the ethnic group studied here, solidarity is related to the gypsies' social norms. As we explained above, solidarity is one of the main features of the value system of this population, particularly helping other gypsies financially. Hence, individuals are socially obligated not to punish other gypsies. Our results show that this social norm is, in fact, observed by these actors, thus explaining the players' two contradictory behaviors.

Although we observe clear signs of solidarity, we may also suppose that lexicographic preferences play a relevant role in individuals' behavior⁹, i.e., individuals will accept even unfair divisions because they want to *maximize their social welfare regardless of how the money is actually distributed* (with this strategy they minimize the probability of both players obtaining zero).

Last, our analysis shows that variables related to education, economic standards (home ownership, labor conditions, etc.), religiosity, family (siblings, eating customs), social integration (friends invited home, trust, volunteer work) do not explain MAO. We also find that while inequity aversion has no effect on MAO, both club membership and gender variables do. Specifically we show that club membership and being a female doubles fairness criteria. Thus females and club members are not willing to accept very unfair divisions.

To sum up, individuals will demonstrate fair behavior when deciding how to divide the money. Nonetheless, when subjects must decide about the minimum amount of money they will accept (MAO), this behavior will change depending on their sense of solidarity and their desire to maximize their social welfare (lexicographic preferences).

⁹The lexicographic preferences are defined in \mathbb{R}^2 as follows.

$$x = (x_1, x_2) \in \mathbb{R}^2$$

$$y = (y_1, y_2) \in \mathbb{R}^2$$

$$x \succeq y \left\{ \begin{array}{l} x_1 > y_1 \text{ or} \\ x_1 = y_1 \text{ and } x_2 \geq y_2 \end{array} \right\}$$

For the particular gypsy: x_1 = expected social welfare and x_2 = individuals' payments

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Table 1.a: POPULATION FEATURES I

ATTRIBUTE	%	M*	ATTRIBUTE	%	M*
female	68	0	married	73	1
some level of education	93	1	lives with his partner	67	5
part-time job	64	27	has children	86	3
gypsy boss	0	34	was born in Spain	100	0
homeowner	3	4	was born in Madrid	63	0
does not own a watch	64	0	was born in a rural village	18	5
no satellite television	87	0	head of the family	54	3
does not own a radio	24	0	the family eats together	16	0
does not own a car	70	0	houses with guests	54	1
property owner	0	0	thinks they live in a safe home	74	0
unemployed	83	15	club member	24	4
religious	75	2	volunteer worker	15	5
goes to church	59	9	distrustful of people	56	2
goes to school	65	0	inequity averse	49	1

Table 1.b: POPULATION FEATURES II

ATTRIBUTE	MEAN	M*	ATTRIBUTE	MEAN	M*
age	28.79	1	number of children	2.57	8
school attend./years	3.6	13	number of brothers	6	0
hours worked/week	24.6	28	position among brothers	3.84	0
gypsy colleg./job	15.3	35	people living in a house	4.76	0
church attend. days/month	21.61	20	guests for lunch everyday	5.73	16

Table 2: PROPOSED DIVISIONS

DIVISIONS	ORIGINAL		ROLE-REV.		BOTH	
	ABS.	REL.	ABS.	REL.	ABS.	REL.
10.0	0	0	0	0	0	0
9.1	0	0	0	0	0	0
8.2	0	0	0	0	0	0
7.3	1	0.07	0	0	1	.03
6.4	0	0	0	0	0	0
5.5	13	.93	24	1	37	.97
4.6	0	0	0	0	0	0
3.7	0	0	0	0	0	0
2.8	0	0	0	0	0	0
1.9	0	0	0	0	0	0
0.10	0	0	0	0	0	0
TOTAL	14	1	24	1	38	1

Table 3: MINIMUM ACCEPTED OFFER

INTERVALS	ORIGINAL		ROLE-REV.		BOTH	
	ABS.	REL.	ABS.	REL.	ABS.	REL.
$s \in [0, 10]$	6	0.25	5	0.36	11	0.29
$s \in [1, 10]$	2	0.08	3	0.21	5	0.13
$s \in [2, 10]$	7	0.29	0	0	7	0.18
$s \in [3, 10]$	3	0.13	2	0.14	5	0.13
$s \in [4, 10]$	4	0.17	1	0.07	5	0.13
$s \in [5, 10]$	0	0	1	0.07	1	0.03
OTHERS						
$s \in [4, 6]$	1	0.04	0	0	1	0.03
$s \in [2, 8]$	0	0	1	0.07	1	0.03
$s = [5, 5]$	1	0.04	1	0.07	2	0.05
TOTAL	24	1	14	1	38	1

Table 4: MAO: GENDER AND CLUB EFFECTS

	<i>n</i>	MIN	MAX	MEAN	ST. DEV.
CLUB MEMBER	7	0	5	2.7	2.0
NOT CLUB MEMBER	24	0	4	1.3	1.3
FEMALE	23	0	4	2.0	1.4
MALE	11	0	5	1.0	1.6

Figure 1: ACCEPTANCE RATE BY GENDER

