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Bargaining behavior, demographics and nationality: A reconsideration of the experimental evidence

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A Reconsideration of the Experimental Evidence

by

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ABSTRACT

Bargaining behavior appears to vary across nations. What drives these apparent differences? We reconsider the evidence provided by previous experiments, and undertake some new experiments that expand the controls for demographics. We show that inferences about country effects are sensitive to the way in which the data are analyzed and the controls that are incorporated. Separating out differences in initial behavior versus trend shows significant differences in both. Adding interaction effects between countries, gender, and ethnic background shows that cultural differences are more complex than the factors captured by either nationality or gender alone. Some subgroups behave in ways which are clearly closer to the subgame perfect equilibrium prediction than others.

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Bargaining behavior appears to vary across nations. What drives these apparent differences? We reconsider the evidence provided by previous experiments, and undertake some new experiments that expand the controls for demographics.

We draw several conclusions from re-examining the data from previous experiments conducted in Japan, Israel, Yugoslavia, and the United States by Roth, Prasnikar, Okuno-Fujiwara, and Zamir [1991] (RPOZ). We confirm their general conclusions that there are significant country differences in both starting behavior and in round-by-round adaptation. Our conclusions vary in some details, with respect to the decomposition of the differences into "starting point" versus "adaptive" behavior, but the general conclusion is the same. The dynamic effects come out more clearly in the panel regressions reported here than they do in the round-by-round analysis undertaken in RPOZ. Particularly outstanding is Israel, with a lower average starting offer than any other country and additional declines in offers over time. First round offers in Israel are 9 percentage points below the US, and even further below Japan and Yugoslavia. In Israel we also observe a higher propensity to accept than in any other country, putting Israel closer to the subgame perfect Nash equilibrium prediction than any other country. Japan shows the strongest adaptation over time. In Yugoslavia offers do not change much over time, but in the US there is a slight *increase* throughout the rounds.

It would, however, clearly be incorrect to infer from this general finding that nationality *per se* is associated with differences in behavior.[1] Instead, it could just be an effect from demographics, other than nationality, that are not controlled for in the analysis. For example, it could simply be a gender effect, and be due to differences in the gender mix of the samples in each country. Since RPOZ do not collect information on individual subject characteristics, it is impossible to tease these two hypotheses apart using their data.

The obvious solution, consistent with the methodological contribution of RPOZ, is to add even more controls to the design by collecting information on individual characteristics and thereby test these hypotheses directly.[2] We do so, using experimental data collected in the United States and Russia.

We draw two conclusions from our expanded design.

First, there is a country effect even after one controls for individual characteristics. This effect would

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[1] RPOZ note (p.1068) that: "... a major methodological goal of the present investigation was to give us the opportunity to learn from experience how to deal with the formidable problems of experimental design that come to the fore in constructing a multinational experiment, particularly if one of the goals of the experiment is to investigate possible cultural differences. These problems include how to control for potential experimental artifacts arising from the different languages in which instructions are given, the different currencies in which subjects are paid, and the different experimenters who conduct the trials in each country. To the extent that these factors can be controlled, different behavior in the different subject pools can cautiously be used as the basis for preliminary conjectures about cultural differences that might account for the different observed behavior." We are not so ready to associate national effects with cultural effects, as discussed later, but the general methodological goal is to use the experimental approach to control for factors that might otherwise contaminate cross-national comparisons.

[2] RPOZ (p.1092) clearly qualify their conclusions, noting that they rest on the assumption that their experimental controls were adequate and that their results are found to be replicable in related economic environments.

have been missed, however, if one had not used a statistical analysis that controlled for possible country differences in initial behavior and behavior across rounds, recognizing as well that these are panel data.[3] Accounting for the basic dynamics of behavior is critical to drawing the right inference about country effects.

Second, the country effects are more complex than simple additive effects. They interact with basic demographics, such as gender, in clear ways. The interaction effects found here have not been observed in previous experiments for the simple reason that the necessary demographic characteristics of the subjects were not collected.

Our findings indicate that great care has to be taken when drawing conclusions regarding behavioral differences due to gender or nationality. There is a burgeoning literature in experimental economics examining differences in behavior across nations, as well as a literature examining the effects of gender on behavior.[4] In light of our findings of significant effects at a finer demographic level, it is not surprising that the observations in this literature are often contradictory, or at least varied. Our results should encourage experimenters to collect a larger set of demographic characteristics of their subjects, so as to better approximate the level of detail necessary to capture possible cultural differences.

In section 1 we reconsider the experiments of RPOZ. We examine their data and consider the effects of allowing for temporal dependence in the analysis of the data, along with the panel structure of the data, when drawing statistical inferences. In section 2 we describe an extension of their design to include demographic variables. In section 3 we identify several implications for experimental practice.

1. Previous Experiments

The Ultimatum Game

In the Ultimatum game one of two players proposes a split of a fixed monetary pie, and the other player may either accept or reject the proposed split. If the second player accepts the proposal, the payoffs to each are determined by the proposed split. If the second player rejects the proposal, they each get nothing. The subgame perfect equilibrium prediction is for the first player to propose a split that gives him almost 100% of the pie, and for the second player to accept the proposal since any positive offer beats a zero payoff

[3] Experimental economists are now using panel estimation methods more widely. For example, in the analysis of ultimatum bargaining data, List and Cherry [2000] and Cooper, Feltovich, Roth and Zwick [2000] use a random-effects specification such as the one we use. Slonim and Roth [1998; p.580, fn.18] recognized the need for a panel estimator, but incorrectly claim that the sample sizes for their experiments were too small to use a random effects specification.

[4] We document some of that literature in the Appendix. Henrich, Boyd, Bowles, Camerer, Fehr, Gintis, and McElreath [2001] examine ultimatum bargaining behavior in 15 "exotic" cultures located in 12 countries, and include information on demographics when statistically analyzing behavior. Although they claim that individual demographics were *not* significantly related to offers (p.76), they declined to make their raw data available for evaluation (personal correspondence, Joe Henrich, 6/11/2001). One concern with their results is the wide divergence in experimental procedures necessitated by the minimal literacy of many of the subjects and disparate field conditions. It was precisely this procedural control that was the main contribution of RPOZ.

for a player that is not satiated in money. The experimental data consistently shows that the average offer to the second player is substantially greater than predicted, and that the second player often rejects small offers.[5]

These stylized observations lead to the popular hypothesis that there exists some uncontrolled element in individual utility, and that individuals care about the payoffs of other players as well as their own payoffs. One motivation behind multinational tests of the Ultimatum game is the possibility that such "altruistic" preferences are culturally determined, and that behavior therefore may vary across nations since we intuitively expect culture to vary across nations.

Experimental Design

RPOZ ran a series of Ultimatum games in Japan, Israel, Yugoslavia, and the United States.[6] They claim that their data shows significant behavioral differences between subject pools across these nations. Specifically, they concluded that groups in the United States and Yugoslavia displayed the usual experimental results of a modal 50-50 split, but that the groups from Japan and Israel were closer to a 60-40 split. They also found that the propensity to reject lower offers was significantly lower in Japan and Israel.[7]

Three sessions were conducted in each country. In each of Israel, Japan and Yugoslavia only one experimenter was used for all sessions. Each of these three experimenters conducted one session in the United States. Thus it is possible to identify experimenter effects as well as country effects.

No data were collected on the age, gender or other demographics of the individual participants. However, some sessions did have identified differences in subject pool. Two differences are noted in RPOZ (p.1075): in one of the Israeli sessions, and in one of the Yugoslav sessions.

Each subject participated in a session lasting 10 rounds. Each subject faced a new, randomly selected opponent in each round. Thus the data consist of balanced panels of individuals responding over each of 10 rounds.

Results

We begin the analysis by considering the response data. Table 1 presents the results of a random-effects panel logit estimator applied to the response data. The model estimated here includes the current offer, a variable identifying the trend across rounds (Lround), dummy variables for the countries, dummy variables for the experimenters (Shmuel and Masahiro), dummy variables for the two sessions in which there

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[5] See Güth and Tietz [1990] and Harrison and McCabe [1996] for reviews of the empirical findings.

[6] The data and *Stata* programs to replicate these calculations can be obtained from HTTP://DMSWEB.BADM.SC.EDU/LISA/RESEARCH/BARGAIN.HTM. Alvin Roth kindly approved the use of the data, which we obtained from Miguel Costa-Gomes.

[7] Unless otherwise stated, all statements about acceptance or rejection rates are conditional on the level of the offer.

were some identified differences in sample recruitment (IsDiff and YuDiff), and interaction effects between the country dummy variables and the trend variable (LrIsr, LrJap, and LrYug). The trend variable is calculated as the round number minus one, and therefore the country dummy variables capture the first round effects. Thus we can draw inferences regarding differences across nations in initial behavior as well as adaptive, or trend, behavior.

The top panel of Table 1 shows the estimation results, and the second panel shows the marginal effects, which are the more important results.[8] These results refer to the marginal effects of the listed variables on the probability of an acceptance. Thus a 1% increase in the amount offered in the current period is associated with a 2.1 percentage point increase in the likelihood of acceptance in the current period. These results also show the 95% confidence intervals, indicating if some point estimate is statistically significant or not at that level. An asterisk beside a variable name indicates that the marginal effect is calculated assuming a discrete change in the value of the variable, since the variable is a dummy.

Compared to the reference country, Responders in Israel have a 20 percentage points higher propensity to accept offers initially, but follow a similar, increasing trend subsequently. On the other hand, Responders in both Japan and Yugoslavia behave similarly to US Responders initially. In Yugoslavia we observe declining acceptance probabilities. As expected, the current offer has a positive effect on the probability to accept.

Turning to the offer data, inferences about nationality differences in RPOZ were based primarily on round 10 behavior. Modal offers in the US and in Yugoslavia were 50% shares, but they were 40% in Japan and Israel. Examination of the distributions of offers in each round allows some preliminary analysis of the dynamics of behavior.[9] In each country there appears to be some variation in the offer distributions over time, with lower offers being tried out in round 4 through 6 or thereabouts. Examination of the individual data indicates that there are two broad types of subjects: those that appear to decide on a strategy and vary it only locally, and those that play around with large variations in their strategy, presumably learning by doing. This indicates that one should allow for each individual to have different "dynamics" in any statistical model evaluating these results; we consider this issue later, when examining dynamic specifications.

Table 2 presents the results of a random-effects panel regression in which the dependent variable is the percentage offer to the Responder. The variables are the same as for the analysis of Responses, except that the counterpart acceptance by the bargaining partner is not included since it is not known at the time that the offer is made. The regression allows for individual-specific variances, so that each subject can exhibit different *residual* variances in their offer. The coefficients are estimated using feasible Generalized Least Squares.

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[8] The implicit experimenter is Vesna Prasnikar, and the implicit country is the United States.

[9] Figures A1 through A4 of the Appendix provide histograms of these data.

Again we find country differences in both initial behavior and adaptation across rounds. Israel stands out on the Sender side, just as it did on the Responder side, with initial offers which are 9 percentage points less than in the reference country, the US. Sending behavior in Yugoslavia is somewhat more generous than in the US in the first round. In addition to these first round differences, there are also clear differences in adaptive behavior. In the US we see additional increases in offers over time. On the other hand, Israel has additional reductions in offers, leading to an increasing gap in behavior across the two countries since the Israeli starting offers were already the lowest. Japan and Yugoslavia also show negative trends over time. There is a significant experimenter effect from Shmuel Zamir, and the two sessions with identified differences in subject recruitment exhibited different offers.

In summary, despite the lower offers in Israel in the early rounds, acceptance rates are higher than in the US. This leads to a further reduction in the offers from Senders, and to Responders increasing their propensity to accept. Despite the higher offers in the US in the first round, the lower initial acceptance rates may have caused Senders to increase their offers over time, with a resulting increase in acceptances. Our results suggest that there are several factors at work in Israel. The experimenter appeared to be associated with initial offers that were 4.6 percentage points *higher*, the specific session with different recruitment procedures is associated with offers that are 3.1 percentage points *lower*, and the country effect is associated with offers that are nearly 9.5 percentage points *higher*.

These conclusions differ in their details from those of RPOZ, who conducted no statistical test of the response data and an unconditional non-parametric test of the offer data.[10] However, our results confirm their general conclusion that these data exhibit country effects. Our analysis adds some statistical structure to that conclusion, allowing one to pinpoint differences in dynamic paths. Since there could be offsetting differences in starting point behavior and adaptive behavior, it may be important to keep these separate when drawing inferences about country effects.

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[10] Their justification for using non-parametric procedures (p.1085) are two-fold. First, they note that the offer data is asymmetric. This is true, but should not be decisive if one is undertaking an analysis in which the data is to be conditioned on some explanatory variables. Consider the following thought Monte Carlo experiment. Take a skewed random variable defined over a given sample size, multiply it by a constant, add a constant, and then add a beautifully white noise term. There is no reason that one cannot examine this skewed dependent variable with a parametric statistical method; the key issue is the distribution of the *errors*, which in this contrived case will be well-behaved even if the dependent variable is horribly skewed. Of course, if one is undertaking an unconditional analysis then appropriate methods might include non-parametric tests were it not for other factors (such as the panel structure of the data). But an unconditional analysis can be dramatically misleading, for the obvious reasons. Second, they note that the samples are small since they cannot view behavior by the same individual in different rounds as independent and must therefore examine the data one round at a time. This is true, but argues for a panel analysis that allows for some temporal correlation in behavior, particularly if it is individual-specific.

2. An Expanded Experimental Design

We undertook a series of Ultimatum game experiments in Russia and the United States in order to test for the effect of demographic variables in addition to the country effects of RPOZ. The main extension was to collect standard information on socio-demographics of each individual subject.

Sixty subjects were recruited from the student population at Moscow Institute of Electronics Technology (MIET). Most of these students were business students at the Zelenograd Business College at MIET. There were two sessions, one in November 1994 and one in March 1995. Each session included 30 subjects. In each session half of the subjects were designated buyers (making offers) and half sellers (accepting or rejecting offers). Subjects made decisions in 5 consecutive bargaining rounds, maintaining their designation as buyers or sellers but playing against different, anonymous opponents in each round. At the end of the experiment one of the rounds was selected at random to determine actual payments. The buyer/seller designation was private information throughout the experiment. Subjects were paid 7000 Rubles for participating and they bargained over 14,000 Rubles in each round during the first session. In the second session subjects were paid 8,000 Rubles for participating and bargained over 16,000 Rubles.[11]

In the United States the same procedures were used in three sessions of 20 subjects each for a total of 60 subjects. These subjects were recruited from the University of South Carolina (USC) and paid $5 for participating while bargaining over $10.[12]

The same experimenter (Hirsch) conducted all experiments, so there should be no experimenter effects across sessions.

Results

Table 3 and 4 show the results of a panel logit regression model for the response data, and Table 5 defines each of the variables used. Table 3 includes a fixed country effect variable (Russia), whereas Table 4

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[11] The amounts were chosen based on comparative purchasing power for a student in either Russia or the United States. The values were meant to be large enough to purchase two reasonable student lunches at a university cafeteria. While the Ruble was devalued significantly over this time period, the price of an average student lunch at the university had not changed as much.

[12] Each session was conducted in a regular classroom where there was plenty of room for subjects to spread out for privacy. Subjects were given a folder which contained all the instructions and the message forms. The language in the instructions used terms like "buyers" and "sellers," rather than "Senders" and "Responders". Proposals were formulated in terms of number of "tokens," each of which had the same value to both players. The total number of tokens that could be divided up between the two players in each round was 1000. After the first players had made their proposals, the forms were collected, collated, and handed back to their partners. In order to keep the designation private, we collected and handed back forms to all players every time we went around the room. The player who was not making a decision was asked to report a guess of what decision his partner was making. All players went through a practice round together before starting. The sessions lasted approximately 1¼ hours. The time required for each session varied slightly, based on the subjects' understanding of the game, the level of difficulty in filling out the required demographic questionnaire, and the size and structure of the classroom in which the experiment was held. A complete set of instructions, as well as the data and the *Stata* code for our analyses can be found at HTTP://DMSWEB.BADM.SC.EDU/LISA/RESEARCH/BARGAIN.HTM.

shows a specification with variables that interact country with gender and ethnicity.

The fixed country effect in Table 3 is not significant, but there is a significant gender effect with male acceptance rates being 24 percentage points higher than females (coefficient on maleR), and acceptance rates of participants of Slavic ethnicity 44 percentage points less than Other Whites.[13] A trend variable (Lround) is included, so the dummy variables capture first round effects. Since the trend variable is only significant at the 9.5% level, however, the first round effects tend to persist throughout the rounds.

As we break these aggregate effects down into interaction effects in Table 4, we see that the gender effect is due to Russian females (who are all of Slavic ethnicity) having significantly lower acceptance rates than any other white ethnic group. The coefficients on Russian males (rRuSlavm) and on US whites (rUSwhf and rUSwhm) are each positive and significant in relation to the reference group, Russian females. Acceptance rates of Russian males are 38 percentage points higher, and in the US the acceptance rates are 37 and 50 percentage points higher for females and males, respectively. There appears to no gender effect in the US, since the coefficients of rUSwhf and rUSwhm are similar, but in fact they are statistically different at the 3.4% level since they are each estimated so precisely. In the US, white males accept more often than white females. There also appears to be some effect correlated with ethnicity, since white males in the US have somewhat higher acceptance rates than participants of non-white ethnic US groups, which include both genders. The difference in the marginal effects of rUSwhm and rUSAA (rUSorace) is 10 (15) percentage points, and these are statistically significant differences.

Tables 6 and 7 present the results from panel regressions in which the dependent variable is the percentage offer. In these regressions we control for nationality, gender and ethnicity, but not for interactions between them. Table 7 separates initial effects from adaptation by including a trend variable, Lround. We draw two major conclusions from these two regressions.

First, *if we had not controlled for differences between initial behavior and adaptation across rounds, we would have drawn the false conclusion that there was no country effect.* The coefficient on Russia in Table 6 is not significantly different from zero. We do find that Russian bargaining behavior is different from American behavior in Table 7, however, where the trend variable Lround is included. Initial offers are lower in Russia than in the US by 7.6 percentage points. The regression model also includes a trend variable interacted with the country dummy variable, LrRus, capturing the trend in Russia. Russian offers remain fairly stable across rounds, but US offers increase across rounds by 0.6 percentage points per round. Hence, distinguishing between initial behavior and adaptation can be important for the inferences one draws about possible country effects. This result is consistent with our re-analysis of the RPOZ data, where the US showed high initial offers and then

[13] This difference derives from the marginal effects of variables SlavR and OraceR. There is no variation in ethnic background for either men or women in Russia. All Responders are of Slavic ethnicity. In the US there is some variation, however.

further increases over time. Both findings are confirmed in the new experiments.

Second, *there are significant behavioral differences on a much finer detailed demographic classification level than the country and gender levels*. The finest level we can look at, given the data collected, is the three-way interaction between country, gender, and ethnicity.[14] We find that women in Russia offer significantly more than any other group, at least in the first period. This is shown in Table 8 where the coefficient on each of the demographic-specific first round effects are negative and significant in relation to the reference group, Russian females. All Russian females are again of Slavic ethnicity. However, some male Senders in Russia are of non-Slavic White ethnicity. Other first period differences include lower offers by Russian males than by US males. We find no significant first period effects based on ethnicity among Russian males, or either ethnicity or gender in the US. We do not find that Russian males adjust over time to close the gap in offers compared to Russian women, but we observe an increase in offers over time by both women and men in the US. We therefore conclude that *observed behavioral differences are not correlated with country or gender, but rather with the interaction between the two*. In particular, we observe Russian women offering more and accepting less frequently than other groups.

3. Implications

We find significant differences in behavior due to nationality and gender. In the RPOZ data, offers in Israel start out lower than elsewhere, and Responders are more willing to accept such offers, leading to further reductions in offers but increases in acceptances. These subjects act more in accordance with the predictions of game theory, and move closer to those predictions over time compared to participants in other countries. Russian women, on the other hand, offer more than Russian males or US participants of either gender, and are also less willing to accept lower offers. This group acts less in accordance with theory, and does not appear to move closer to theoretical predictions over time. Thus we find a country and gender interaction effect when we have the data to allow it to be identified.

US offers are observed to increase in both sets of experiments. Acceptance rates in the RPOZ experiments increase in response to these changes in offers, but this is not so in the present series of experiments.

Two methodological issues arise from our reconsideration of the bargaining experiments of RPOZ and from our new experimental data. First, how should one evaluate data in which the subjects respond over multiple periods? Second, how should one draw inferences about the effects of culture on bargaining behavior?

[14] We are restricted in our analysis by limited variation in certain demographics in the data collected. These restrictions are discussed in the Appendix.

Temporal Dependence

Given the popularity of Ground Hog Day experimental designs, in which the subjects are reincarnated every round in the same role against different opponents, statistical as well as behavioral issues deserve more systematic methodological examination by experimenters and those interested in experimental data. Our analysis of RPOZ data, and of the new experimental data, indicate that both initial behavior and changes over time deserve careful attention. Neither can be assumed to be a definitive and best measure of behavior on its own.

"Culture"

It is tempting, but incorrect, to equate the effect of culture on bargaining behavior with the effect of a country dummy variable. The word "culture" connotes systematic beliefs and modes of behavior that are associated with a group of individuals. One can have a Swedish culture, and even an Australian culture, but one can also have a "geek culture" or a "gay culture." In general there are many characteristics of individuals that can be used to identify systematic beliefs and patterns of behavior, and nationality is just one such characteristic.

Moreover, it is completely plausible that some of these characteristics might interact. Thus the effect of gender in one country could be very different from the effect of gender in another country. In other words, the differential effect of gender could be a reflection of the effects of "national culture." RPOZ (p.1092) note that there were differences in the age and gender mix of their subject pool in different countries, reflecting differences in national cultures with respect to attendance at higher-education and the necessity of military duty. The possibility of interactions makes it even more difficult to claim that culture can be reduced to a simple country dummy variable, or identified by unconditioned bilateral comparisons of distributions of behavior between two countries.

One upshot of these considerations is that one should be careful to think about country effects in experimental designs as residual effects, *after* one has controlled for other effects. This conclusion is akin to thinking of a dummy variable for the country of the experiment as simply picking up the effect of "whatever is in the water (or beer)" that makes people behave differently. That is, it picks up those factors in the country that affect behavior beyond those that are already included, such as age and sex in our expanded design.

Another conclusion is that we should best think of the effect of national culture in both conditional and unconditional terms. This conclusion is just a plea for cleaner language use, so that we do not assume implicitly that sex or age effects are biological when they could be cultural.

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Table 1: Panel Logit Analysis of Responses From RPOZ data

```
Random-effects logit                            Number of obs      =      1160
Group variable (i) : SellerID                   Number of groups   =       116
Random effects u_i ~ Gaussian                   Obs per group:     =         10
                                                Wald chi2(12)      =    154.64
Log likelihood  = -463.01285                    Prob > chi2        =    0.0000
```

accept	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Lround	.1325128	.0692626	1.91	0.056	-.0032395	.268265
LrIsr	.0674633	.1023288	0.66	0.510	-.1330975	.268024
LrJap	-.0406336	.0962193	-0.42	0.673	-.22922	.1479528
LrYug	-.1732518	.0908014	-1.91	0.056	-.3512193	.0047157
offer	.2098177	.0173104	12.12	0.000	.17589	.2437453
Israel	2.795581	.986364	2.83	0.005	.8623433	4.728819
Japan	.5164791	1.12793	0.46	0.647	-1.694223	2.727181
Yugoslav	.0825151	.8017804	0.10	0.918	-1.488946	1.653976
Shmuel	-.8619025	.9831815	-0.88	0.381	-2.788903	1.065098
Masahiro	.1253034	1.077149	0.12	0.907	-1.98587	2.236477
IsDiff	.6265365	1.100688	0.57	0.569	-1.530772	2.783845
YuDiff	.8448886	.6947519	1.22	0.224	-.5168001	2.206577
_cons	-7.550585	.9328876	-8.09	0.000	-9.379011	-5.722159
/lnsig2u	1.55309	.2924744			.9798502	2.126329
sigma_u	2.173948	.3179121			1.632194	2.895519
rho	.8253595	.0421576			.7270785	.893436

Marginal Effects

```
      y  = Pr(accept=1 assuming u_i=0) (predict, pu0) =  .88507833
```

variable	dy/dx	Std. Err.	z	P>|z|	[	95% C.I.	]	X
Lround	.0134785	.00731	1.84	0.065	-.000858		.027815	4.50000
LrIsr	.006862	.01043	0.66	0.511	-.013577		.027301	1.16379
LrJap	-.004133	.00981	-0.42	0.673	-.023356		.01509	1.12500
LrYug	-.0176223	.00963	-1.83	0.067	-.036494		.00125	1.16379
offer	.0213415	.00347	6.15	0.000	.014539		.028144	40.0914
Israel*	.1950003	.06504	3.00	0.003	.067517		.322483	.258621
Japan*	.0477182	.09689	0.49	0.622	-.142191		.237627	.250000
Yugoslav*	.0082658	.07916	0.10	0.917	-.146876		.163408	.258621
Shmuel*	-.0984775	.12811	-0.77	0.442	-.349571		.152616	.336207
Masahiro*	.0125481	.10573	0.12	0.906	-.194687		.219784	.336207
IsDiff*	.0522848	.07383	0.71	0.479	-.09241		.196979	.086207
YuDiff*	.0659403	.03994	1.65	0.099	-.012332		.144212	.086207

```
(*) dy/dx is for discrete change of dummy variable from 0 to 1
```

Legend to Regression Variables for RPOZ data

offer	Current offer
Israel	Dummy variable for participants in Israel
Japan	Dummy variable for participants in Japan
Yugoslav	Dummy variable for participants in Yugoslavia
Shmuel	Dummy variable for sessions ran by Shmuel Zamir
Masahiro	Dummy variable for sessions ran by Masahiro Okuno-Fujiware
IsDiff	Dummy variable for session in Israel with reported subject pool difference
YuDiff	Dummy variable for session in Yugoslavia with reported subject pool difference
Lround	Round - 1
LrIsr	Interaction Israel × Lround
LrJap	Interaction Japan × Lround
LrYug	Interaction Yugoslavia × Lround
LrUS	Interaction US × Lround

Table 2: Panel Regression of Offers From RPOZ data

```
Coefficients:  generalized least squares
Panels:        heteroskedastic
Correlation:   panel-specific AR(1)

Estimated covariances      =       116          Number of obs      =      1160
Estimated autocorrelations =       116          Number of groups   =       116
Estimated coefficients     =        12          No. of time periods=        10
                                                Wald chi2(11)      =    256.41
Log likelihood             = -3278.214          Prob > chi2        =    0.0000

------------------------------------------------------------------------------
       offer |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      Lround |    .196215   .0669099     2.93   0.003     .0650739     .327356
       LrIsr |  -.3945224   .0775614    -5.09   0.000    -.5465399    -.242505
       LrJap |  -.5250066    .111358    -4.71   0.000    -.7432642   -.3067489
       LrYug |  -.2571683   .0889815    -2.89   0.004    -.4315688   -.0827678
      Israel |  -9.450891   1.238363    -7.63   0.000    -11.87804   -7.023745
       Japan |   1.902307   1.106313     1.72   0.086    -.2660266    4.070641
    Yugoslav |   2.194978   .9793229     2.24   0.025     .2755407    4.114416
      Shmuel |   4.556115   1.478165     3.08   0.002     1.658964    7.453265
    Masahiro |  -1.891286   1.329887    -1.42   0.155    -4.497816    .7152444
      IsDiff |  -3.139483   .7625018    -4.12   0.000    -4.633959   -1.645007
      YuDiff |  -3.606967   1.170608    -3.08   0.002    -5.901316   -1.312617
       _cons |   42.33046   .7458536    56.75   0.000     40.86862    43.79231
------------------------------------------------------------------------------
```

Table 3: Logit Panel Regression of Acceptance Propensities, No Interaction Variables, New Data

```
Random-effects logit                            Number of obs      =       295
Group variable (i) : idR                        Number of groups   =        59
Random effects u_i ~ Gaussian                   Obs per group:     =         5
                                                Wald chi2(24)      =     68.54
Log likelihood  =  -110.4898                    Prob > chi2        =    0.0000
```

acceptr	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
OfferrP	.1668792	.021587	7.73	0.000	.1245695	.209189
Russia	.5902302	1.389766	0.42	0.671	-2.133661	3.314121
SlavR	-3.518508	1.393229	-2.53	0.012	-6.249188	-.787829
AAR	-.6210898	.9277446	-0.67	0.503	-2.439436	1.197256
OraceR	-.6509949	1.581655	-0.41	0.681	-3.750981	2.448992
maleR	1.361665	.4904861	2.78	0.006	.4003303	2.323
Lround	-.3011987	.1797368	-1.68	0.094	-.6534763	.0510789
LrRus	.2637451	.2474485	1.07	0.286	-.2212451	.7487353
ParIncR	-.5698218	1.130757	-0.50	0.614	-2.786064	1.64642
Pinc1R	.8615277	.6029257	1.43	0.153	-.3201849	2.04324
Pinc2R	1.529184	.8614682	1.78	0.076	-.1592631	3.21763
YrsWorkR	-.2362857	.1456984	-1.62	0.105	-.5218494	.049278
mgovR	.1250167	.5951862	0.21	0.834	-1.041527	1.29156
mbusR	.003532	.4493905	0.01	0.994	-.8772572	.8843212
fbusR	-.0700462	.5300263	-0.13	0.895	-1.108879	.9687864
fgovR	.3946739	.6504775	0.61	0.544	-.8802385	1.669586
Under18R	-.0409632	.6840124	-0.06	0.952	-1.381603	1.299677
NhhR	-.1643719	.1972384	-0.83	0.405	-.5509521	.2222083
HHinc1R	.2441122	.5970312	0.41	0.683	-.9260475	1.414272
HHinc2R	.5548698	.8263362	0.67	0.502	-1.064719	2.174459
StudentR	-.6692234	.7150239	-0.94	0.349	-2.070644	.7321976
ScienceR	-.9074426	.9693929	-0.94	0.349	-2.807418	.9925325
BusR	.5512337	.6027227	0.91	0.360	-.630081	1.732548
UrbanChR	2.077142	.6761807	3.07	0.002	.751852	3.402432
_cons	-4.713568	1.851739	-2.55	0.011	-8.342909	-1.084226
/lnsig2u	-14	385.4001			-769.3704	741.3704
sigma_u	.0009119	.1757197			8.6e-168	9.7e+160
rho	2.53e-07	.0000296			0	.

Marginal effects

```
      y  = Pr(acceptr=1 assuming u_i=0) (predict, pu0) =  .74982824
```

variable	dy/dx	Std. Err.	z	P>|z|	[	95% C.I.	]	X
OfferrP	.0313042	.00389	8.05	0.000	.023678	.038931		36.3017
Russia*	.1107859	.26088	0.42	0.671	-.400539	.62211		.508475
SlavR*	-.5782312	.18446	-3.13	0.002	-.93976	-.216703		.542373
AAR*	-.1307966	.21266	-0.62	0.539	-.547603	.28601		.067797
OraceR*	-.1394155	.37353	-0.37	0.709	-.87153	.592699		.016949
maleR*	.2405688	.08047	2.99	0.003	.082848	.39829		.423729
Lround	-.0565006	.03382	-1.67	0.095	-.122795	.009794		2.00000
LrRus	.0494748	.0467	1.06	0.289	-.04205	.140999		1.01695
ParIncR*	-.0940278	.16193	-0.58	0.561	-.411407	.223351		.915254
Pinc1R*	.156968	.10677	1.47	0.142	-.052292	.366228		.440678
Pinc2R*	.2508148	.12229	2.05	0.040	.011132	.490497		.338983
YrsWorkR	-.0443239	.0273	-1.62	0.104	-.097826	.009179		2.06780
mgovR*	.0228882	.1067	0.21	0.830	-.186249	.232025		.118644
mbusR*	.0006624	.08424	0.01	0.994	-.164451	.165776		.322034
fbusR*	-.0131604	.09963	-0.13	0.895	-.20843	.182109		.454237
fgovR*	.0693752	.10846	0.64	0.522	-.143202	.281953		.186441
Under18R*	-.0077306	.12988	-0.06	0.953	-.2623	.246839		.203390
NhhR	-.0308338	.03684	-0.84	0.403	-.103032	.041364		2.35593
HHinc1R*	.0441127	.1037	0.43	0.671	-.15914	.247365		.203390
HHinc2R*	.0968369	.13276	0.73	0.466	-.163363	.357037		.254237
StudentR*	-.1106911	.10419	-1.06	0.288	-.314896	.093514		.847458
ScienceR*	-.1975807	.23388	-0.84	0.398	-.655975	.260814		.084746
BusR*	.1104277	.12785	0.86	0.388	-.140149	.361005		.762712
UrbanChR*	.4563154	.14547	3.14	0.002	.171197	.741434		.796610

(*) dy/dx is for discrete change of dummy variable from 0 to 1

Table 4: Logit Panel Regression of Acceptance Propensities, Interaction Variables, New Data

```
Random-effects logit                            Number of obs      =       295
Group variable (i) : idR                        Number of groups   =        59
Random effects u_i ~ Gaussian                   Obs per group:     =         5
                                                Wald chi2(26)      =     67.26
Log likelihood  = -107.68092                    Prob > chi2        =    0.0000
```

acceptr	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
OfferrP	.1736032	.0225002	7.72	0.000	.1295036	.2177028
rRuSlavm	3.296455	1.058415	3.11	0.002	1.221999	5.370912
rUSwhf	3.489291	1.111465	3.14	0.002	1.31086	5.667721
rUSwhm	5.864796	1.262976	4.64	0.000	3.389409	8.340183
rUSAA	2.998942	1.142851	2.62	0.009	.7589958	5.238889
rUSorace	2.278033	1.678946	1.36	0.175	-1.012641	5.568706
rLrRusm	-.5168303	.3013116	-1.72	0.086	-1.10739	.0737296
rLrRuw	.2949979	.2074768	1.42	0.155	-.1116491	.701645
rLrUswm	-.6135886	.3386717	-1.81	0.070	-1.277373	.0501958
rLrUswf	-.0559864	.2826991	-0.20	0.843	-.6100665	.4980937
ParIncR	-.6231383	.9243139	-0.67	0.500	-2.43476	1.188484
Pinc1R	1.162531	.6495145	1.79	0.073	-.110494	2.435556
Pinc2R	1.846761	.9084911	2.03	0.042	.0661509	3.627371
YrsWorkR	-.2497837	.144521	-1.73	0.084	-.5330396	.0334722
mgovR	.2039651	.6094743	0.33	0.738	-.9905827	1.398513
mbusR	.0171822	.4565193	0.04	0.970	-.8775792	.9119437
fbusR	-.1042399	.5428562	-0.19	0.848	-1.168218	.9597387
fgovR	.482703	.6761699	0.71	0.475	-.8425657	1.807972
Under18R	.0156045	.6566518	0.02	0.981	-1.271409	1.302618
NhhR	-.1432067	.2041119	-0.70	0.483	-.5432587	.2568453
HHinc1R	.1848266	.612407	0.30	0.763	-1.015469	1.385122
HHinc2R	.509053	.8069442	0.63	0.528	-1.072529	2.090635
StudentR	-.9735378	.686356	-1.42	0.156	-2.318771	.3716953
ScienceR	-.9506288	.9853863	-0.96	0.335	-2.881951	.980693
BusR	.4956819	.6167721	0.80	0.422	-.7131693	1.704533
UrbanChR	2.346022	.6783102	3.46	0.001	1.016558	3.675486
_cons	-8.913376	1.72302	-5.17	0.000	-12.29043	-5.536319
/lnsig2u	-14	388.3557			-775.1632	747.1632
sigma_u	.0009119	.1770673			4.7e-169	1.8e+162
rho	2.53e-07	.0000298			0	.

Marginal effects

```
      y  = Pr(acceptr=1 assuming u_i=0) (predict, pu0) =  .74867107
```

variable	dy/dx	Std. Err.	z	P>|z|	[	95% C.I.	]	X
OfferrP	.0326656	.00418	7.82	0.000	.024475	.040857		36.3017
rRuSlavm*	.384655	.08153	4.72	0.000	.224852	.544458		.220339
rUSwhf*	.3722449	.07279	5.11	0.000	.229585	.514904		.186441
rUSwhm*	.4976399	.07208	6.90	0.000	.356373	.638906		.186441
rUSAA*	.271386	.04807	5.65	0.000	.17718	.365592		.067797
rUSorace*	.2241393	.06613	3.39	0.001	.094529	.35375		.016949
rLrRusm	-.0972482	.0561	-1.73	0.083	-.207211	.012715		.440678
rLrRuw	.0555076	.03941	1.41	0.159	-.021738	.132753		.576271
rLrUswm	-.1154545	.06411	-1.80	0.072	-.241104	.010195		.372881
rLrUswf	-.0105346	.05317	-0.20	0.843	-.114743	.093674		.372881
ParIncR*	-.1018838	.12848	-0.79	0.428	-.353705	.149937		.915254
Pinc1R*	.2100198	.11304	1.86	0.063	-.011535	.431575		.440678
Pinc2R*	.2955667	.11869	2.49	0.013	.062935	.528198		.338983
YrsWorkR	-.047	.02719	-1.73	0.084	-.100283	.006283		2.06780
mgovR*	.0368754	.10575	0.35	0.727	-.170384	.244135		.118644
mbusR*	.0032281	.08563	0.04	0.970	-.16461	.171066		.322034
fbusR*	-.0196594	.10269	-0.19	0.848	-.22093	.181611		.454237
fgovR*	.0838513	.10686	0.78	0.433	-.125597	.2933		.186441
Under18R*	.0029294	.12297	0.02	0.981	-.23808	.243939		.203390
NhhR	-.0269462	.03836	-0.70	0.482	-.10213	.048238		2.35593
HHinc1R*	.0338184	.10865	0.31	0.756	-.179123	.24676		.203390
HHinc2R*	.0896897	.13354	0.67	0.502	-.172043	.351422		.254237
StudentR*	-.1520438	.08648	-1.76	0.079	-.321545	.017457		.847458
ScienceR*	-.2083819	.2363	-0.88	0.378	-.671525	.254761		.084746
BusR*	.0989812	.13216	0.75	0.454	-.160054	.358016		.762712
UrbanChR*	.5127013	.13607	3.77	0.000	.246013	.77939		.796610

(*) dy/dx is for discrete change of dummy variable from 0 to 1

Table 5: Legend to Regression Variables for New Experiments

Variable	Description
acceptr	Acceptance of proposal by Receiver
OfferrP	Received offer as percent of pie
OffersP	Sender offer as percent of pie
accepts	Acceptance of proposal of Sender
Russia	Moscow Institute of Electronics Technology (Russia)
Sender variables	
maleS	Male
Under18S	Age under 18
NhhS	Number in household
whiteS	White including Slavic
white2S	White, not including Slavic
SlavS	Slavic white
AAS	African-American
OraceS	Other race
HHinc1S	Household income between $50k and $100k
HHinc2S	Household income over $100k
Pinc1S	Parental income between $50k and $100k
Pinc2S	Parental income over $100k
StudentS	Student is main occupation
ScienceS	Field of study is sciences
BusS	Field of study is business
YrsWorkS	Years of work experience
UrbanChS	Urban childhood environment
fbusS	Father's occupation is Business
fgovS	Father's occupation is Government
mbusS	Mother's occupation is Business
mgovS	Mother's occupation is Government
Responder variables	
maleR	Male
Under18R	Age under 18
NhhR	Number in household
whiteR	White including slavic
white2R	White, not including slavic
SlavR	Slavic white
AAR	African-American
OraceR	Other race
HHinc1R	Household income between $50k and $100k
HHinc2R	Household income over $100k
Pinc1R	Parental income between $50k and $100k
Pinc2R	Parental income over $100k
StudentR	Student is main occupation
ScienceR	Field of study is sciences
BusR	Field of study is business
YrsWorkR	Years of work experience
UrbanChR	Urban childhood environment
fbusR	Father's occupation is Business
fgovR	Father's occupation is Government
mbusR	Mother's occupation is Business
mgovR	Mother's occupation is Government
Constructed variables	
Lround	Round - 1
LofferR	lagged offer received by Responder
rRuSlavm	Interaction Russia × Slavic × Male for Responders
rUSwhf	Interaction US × White × Female for Responders
rUSwhm	Interaction US × White × Male for Responders
rUSAA	Interaction US × African-American for Responders
rUSorace	Interaction US × Other Race for Responders
rLrRusm	Interaction Russia × Slavic × Male × Lround for Responders
rLrRuw	Interaction Russia × Female × Lround for Responders
rLrUswm	Interaction US × White × Male × Lround for Responders
rLrUswf	Interaction US × White × Female × Lround for Responders
LrRus	Interaction Russia × Lround for Senders
RuSlavm	Interaction Russia × Slavic × Male for Senders
RuWh2m	Interaction Russia × Non-Slavic White × Male for Senders
Uswhf	Interaction US × White × Female for Senders
Uswhm	Interaction US × White × Male for Senders
USAA	Interaction US × African-American for Senders
Usorace	Interaction US × Other Race for Senders
LrRusm	Interaction Russia × Slavic × Male × Lround for Senders
LrRuwm	Interaction Russia × Non-Slavic × Male × Lround for Senders
LrRuw	Interaction Russia × Female × Lround for Senders
LrUswm	Interaction US × White × Male × Lround for Senders
LrUswf	Interaction US × White × Female × Lround for Senders

Table 6: Panel Regression of Offers, No Trend Variables, New Data

```
Coefficients:  generalized least squares
Panels:        heteroskedastic
Correlation:   panel-specific AR(1)

Estimated covariances      =        59          Number of obs      =       295
Estimated autocorrelations =        59          Number of groups   =        59
Estimated coefficients     =        22          No. of time periods=         5
                                                Wald chi2(21)      =    271.45
Log likelihood             = -877.7369          Prob > chi2        =    0.0000

------------------------------------------------------------------------------
     OffersP |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      Russia |   .8160234   5.759847     0.14   0.887    -10.47307    12.10512
       SlavS |    2.60498   3.932023     0.66   0.508    -5.101644     10.3116
         AAS |  -2.537278   4.585674    -0.55   0.580    -11.52503    6.450479
      OraceS |  -27.29137    3.89543    -7.01   0.000    -34.92627   -19.65647
       maleS |  -5.943215   2.244845    -2.65   0.008    -10.34303   -1.543399
     ParIncS |  -3.942722   3.303308    -1.19   0.233    -10.41709    2.531642
      Pinc1S |  -4.906591    2.58664    -1.90   0.058    -9.976312    .1631298
      Pinc2S |  -1.946884   2.608157    -0.75   0.455    -7.058778    3.165009
    YrsWorkS |  -.6932632   .6446433    -1.08   0.282    -1.956741    .5702145
       mgovS |  -3.569329   1.961774    -1.82   0.069    -7.414335    .2756774
       mbusS |  -5.960906   2.330835    -2.56   0.011    -10.52926   -1.392553
       fbusS |  -2.164924   2.823866    -0.77   0.443    -7.699601    3.369752
       fgovS |  -2.898531   3.238378    -0.90   0.371    -9.245635    3.448574
    Under18S |   6.397032    1.93449     3.31   0.001     2.605502    10.18856
        NhhS |   .5460675   .8334561     0.66   0.512    -1.087476    2.179611
     HHinc1S |  -3.662156   2.491751    -1.47   0.142    -8.545899    1.221586
     HHinc2S |  -6.222375   2.484832    -2.50   0.012    -11.09256   -1.352194
    StudentS |   10.34524    3.91189     2.64   0.008     2.678082    18.01241
    ScienceS |   1.082212   3.653457     0.30   0.767    -6.078432    8.242856
        BusS |   2.876168   2.992978     0.96   0.337     -2.98996    8.742297
    UrbanChS |   3.327175   2.312595     1.44   0.150    -1.205428    7.859779
       _cons |   34.92327   8.028984     4.35   0.000     19.18675    50.65979
------------------------------------------------------------------------------
```

Table 7: Panel Regression of Offers, Trend Variables, New Data

```
Coefficients:  generalized least squares
Panels:        heteroskedastic
Correlation:   panel-specific AR(1)

Estimated covariances      =        59          Number of obs      =       295
Estimated autocorrelations =        59          Number of groups   =        59
Estimated coefficients     =        24          No. of time periods=         5
                                                Wald chi2(23)      =    698.22
Log likelihood             = -872.0425          Prob > chi2        =    0.0000

------------------------------------------------------------------------------
     OffersP |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      Russia |  -7.560478   3.755165    -2.01   0.044    -14.92047   -.2004899
       SlavS |   5.588028   3.134596     1.78   0.075    -.5556672    11.73172
         AAS |  -7.386724   3.821949    -1.93   0.053    -14.87761    .1041589
      OraceS |  -29.83336   3.657071    -8.16   0.000    -37.00108   -22.66563
       maleS |  -9.282665   1.724964    -5.38   0.000    -12.66353   -5.901798
      Lround |   .6351695   .1421449     4.47   0.000     .3565706    .9137684
       LrRus |  -.5945854   .2887509    -2.06   0.039    -1.160527   -.0286441
     ParIncS |  -3.159669    2.85854    -1.11   0.269    -8.762305    2.442967
      Pinc1S |  -2.888466   2.491931    -1.16   0.246    -7.772561    1.995628
      Pinc2S |   .3285128   2.087102     0.16   0.875    -3.762131    4.419157
    YrsWorkS |  -1.397748    .504275    -2.77   0.006    -2.386109   -.4093877
       mgovS |  -2.974372    1.86463    -1.60   0.111     -6.62898    .6802367
       mbusS |  -3.577331   1.975634    -1.81   0.070    -7.449503    .2948402
       fbusS |  -2.659868   2.390862    -1.11   0.266    -7.345872    2.026135
       fgovS |  -4.068933   2.707817    -1.50   0.133    -9.376157    1.238292
    Under18S |   6.387343   1.976398     3.23   0.001     2.513675    10.26101
        NhhS |   .9602316   .5510837     1.74   0.081    -.1198727    2.040336
     HHinc1S |  -2.212397   1.871107    -1.18   0.237      -5.8797    1.454906
     HHinc2S |  -2.420546   1.760076    -1.38   0.169    -5.870232     1.02914
    StudentS |   9.610038   3.735193     2.57   0.010     2.289195    16.93088
    ScienceS |   2.388784   3.297896     0.72   0.469    -4.074973    8.852541
        BusS |   5.018328    2.27811     2.20   0.028     .5533139    9.483342
    UrbanChS |    5.88373   1.888891     3.11   0.002     2.181571    9.585889
       _cons |   34.18936   7.178487     4.76   0.000     20.11978    48.25894
------------------------------------------------------------------------------
```

Table 8: Panel Regression of Offers, Trend Variables and Demographic Interaction Variables, New Data

```
Coefficients:  generalized least squares
Panels:        heteroskedastic
Correlation:   panel-specific AR(1)

Estimated covariances      =        59          Number of obs      =       295
Estimated autocorrelations =        59          Number of groups   =        59
Estimated coefficients     =        28          No. of time periods=         5
                                                Wald chi2(27)      =    548.97
Log likelihood             = -888.5808          Prob > chi2        =    0.0000

------------------------------------------------------------------------------
     OffersP |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     RuSlavm |  -14.29497   2.474012    -5.78   0.000    -19.14395      -9.446
      RuWh2m |  -16.37036   4.477184    -3.66   0.000    -25.14548   -7.595238
       USwhf |  -8.121571   2.785545    -2.92   0.004    -13.58114   -2.662003
       USwhm |  -7.800556   2.704492    -2.88   0.004    -13.10126   -2.499849
        USAA |   -9.22744   3.841978    -2.40   0.016    -16.75758   -1.697301
     USorace |  -35.77878   3.803684    -9.41   0.000    -43.23386   -28.32369
      LrRusm |  -.3489942   .3193608    -1.09   0.274    -.9749298    .2769414
      LrRuwm |   2.276743   1.377464     1.65   0.098    -.4230361    4.976522
       LrRuw |    -.07856   .4087826    -0.19   0.848    -.8797591    .7226391
      LrUswm |   1.449248   .2573609     5.63   0.000     .9448296    1.953666
      LrUswf |   2.119032   .7026223     3.02   0.003     .7419176    3.496146
     ParIncS |  -4.441806   2.648825    -1.68   0.094    -9.633407    .7497955
      Pinc1S |   1.261674   2.312481     0.55   0.585    -3.270705    5.794053
      Pinc2S |  -.5293646   1.719689    -0.31   0.758    -3.899893    2.841164
    YrsWorkS |  -1.243773   .3869243    -3.21   0.001    -2.002131   -.4854158
       mgovS |   -.834584   1.950445    -0.43   0.669    -4.657387    2.988219
       mbusS |   -3.19065   1.851868    -1.72   0.085    -6.820244    .4389451
       fbusS |  -1.459535   2.399609    -0.61   0.543    -6.162682    3.243612
       fgovS |  -1.212795   2.446052    -0.50   0.620    -6.006969    3.581379
    Under18S |   6.355412    1.86049     3.42   0.001     2.708917    10.00191
        NhhS |    1.44194   .6113076     2.36   0.018     .2437995    2.640081
     HHinc1S |  -5.045016    2.20491    -2.29   0.022     -9.36656   -.7234726
     HHinc2S |  -1.557939   1.938183    -0.80   0.422    -5.356708    2.240829
    StudentS |   12.05427   3.710113     3.25   0.001     4.782578    19.32595
    ScienceS |   5.330204   3.075855     1.73   0.083    -.6983613    11.35877
        BusS |   3.375985   2.402298     1.41   0.160    -1.332432    8.084402
    UrbanChS |   5.097054   1.593931     3.20   0.001     1.973007    8.221102
       _cons |   30.59483   6.036202     5.07   0.000     18.76409    42.42556
------------------------------------------------------------------------------
```

Appendix: Additional Results (NOT FOR PUBLICATION)

Previous Experiments

There is a large literature examining the differences in behavior in economics experiments across countries, and the differences in bargaining behavior in terms of gender effects. Without any expectation of providing an exhaustive list, we note the following references which have influenced our design and analyses:

Andreoni, James, and Vesterlund, Lise, "Which is the Fair Sex? Gender Differences in Altruism", *Unpublished Manuscript*, 1998.

Bolton, Gary E., and Zwick, Rami, "Anonymity versus punishment in ultimatum bargaining," *Games and Economic Behavior*, 1995.

Brandts, J.; Saijo, T.; and Schram, A., "A Four Country Comparison of Spite and Cooperation in Voluntary Contribution Mechanisms," *Unpublished Manuscript*, 1998.

Buchan, N.R.; Johnson, E.J.; and Croson, R.T.A., "Country, Culture, and Communication: Extra-Economic Incentives Toward Economic Cooperation," *Unpublished Manuscript*, 1997.

Burlando, R., and Hey, J.D., "Do Anglo-Saxsons Free-ride More?" *Journal of Public Economics*, 64, 1997,41-60.

Cason, T.N.; Saijo, T.; and Yamato, T., "Voluntary Participation and Spite in Public Good Provision Experiments: An International Comparison," *Unpublished Manuscript*, 1997.

Eckel, Catherine C., and Grossman, Philip, "Chivalry and Solidarity in Ultimatum Games," *Unpublished Manuscript*, 1992.

Eckel, Catherine C., and Grossman, Philip J., "Altruism in Anonymous Dictator Games," *Games and Economic Behavior*, 16, 1996, 181-91.

Eckel, Catherine C., and Grossman, Philip, "Are Women less Selfish than Men? Evidence from Dictator Experiments", *Economic Journal*, 1997.

Eckel, Catherine C., and Grossman, Philip, "The Relative Price of Fairness: Gender Differences in a Punishment Game", *Journal of Economic Behavior and Organization*, 30, 1996, 143-58.

Hayashi, N.; Ostrom, E.; Walker, J.; and Yamagishi, T., "Reciprocity, Trust, and the Illusion of Control: A Cross-Societal Study," *Unpublished Manuscript*, 1997.

Saijo, T., and Nakamura, H., "The 'Spite' Dilemma in Voluntary Contribution Mechanism Experiments," *Journal of Conflict Resolution*, 39, 1995, 535-560.

Willer, David and Szmatka, Jacek, "Cross-National Experimental Investigations of Elementary Theory: Implications for the Generality of the Theory and the Autonomy of Social Structures," *Advances in Group Processes*, vol. 10, 1993, 37-81.

Yamagishi, T., "Exit From the Group as an Individualistic Solution to the Public Good Problem in the United States and Japan," *Journal of Experimental Social Psychology*, 24, 1998a, 530-542.

Yamagishi, T., "The Provision of a Sanctioning System in the United States and Japan," *Social Psychology Quarterly*, 51, 1998b, 265-271.

Yamagishi, T.; Cook, K.; and Watabe, M., "Uncertainty, Trust, and Commitment Formation in the United States and Japan," *American Journal of Sociology*, 1998.

Data from the New Experiments

In our regressions for the new experiments we are restricted to include only those variables that have sufficient variation.

We incorporate age as a dummy indicating if a participant is less than or equal to 18, since the US subject pool is almost entirely in the age range 18-29, but almost half the Russian subject pool is younger than 18. The composition of the subject pool in terms of years of work experience is different across countries, most likely due to the age difference. There is some variation in this variable in both countries, but more so in the US than in Russia. In both Russia and the US Father's and Mother's occupations are both dominated by the category Business, and also Government in Russia. We therefore include dummy variables for each parent's occupation as being either Business or Government. Number in household has very little variation. Similarly, country of education has almost no variation in the US, and zero variation in Russia. Almost all subjects in both countries were full time students. In both Russia and the US the Field of study is dominated by Business.

We do not include a variable capturing educational level, since the answers in Russia appear to indicate a misunderstanding: 23 out of 30 respond that they have no college experience, which is obviously erroneous. It is possible that the question was mis-interpreted as asking if they had *completed* college.

Country of birth has no variation in Russia, and very little variation in the US, thus it is not included. Only 5 participants in the US and 2 in Russia report that their parents did not support them.

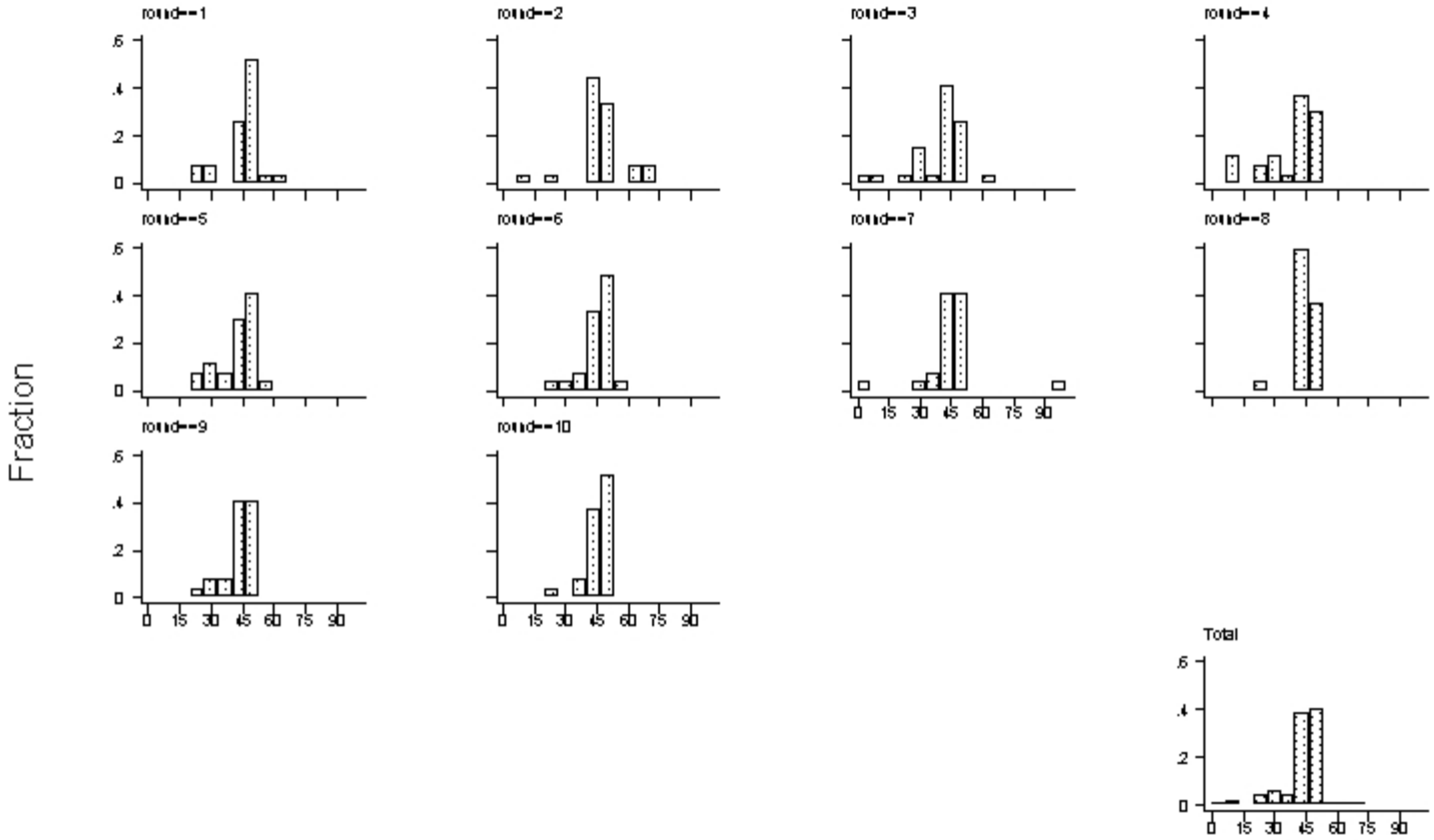

Figure A1: Percent Offers in U.S. Experiments, RPOZ Data

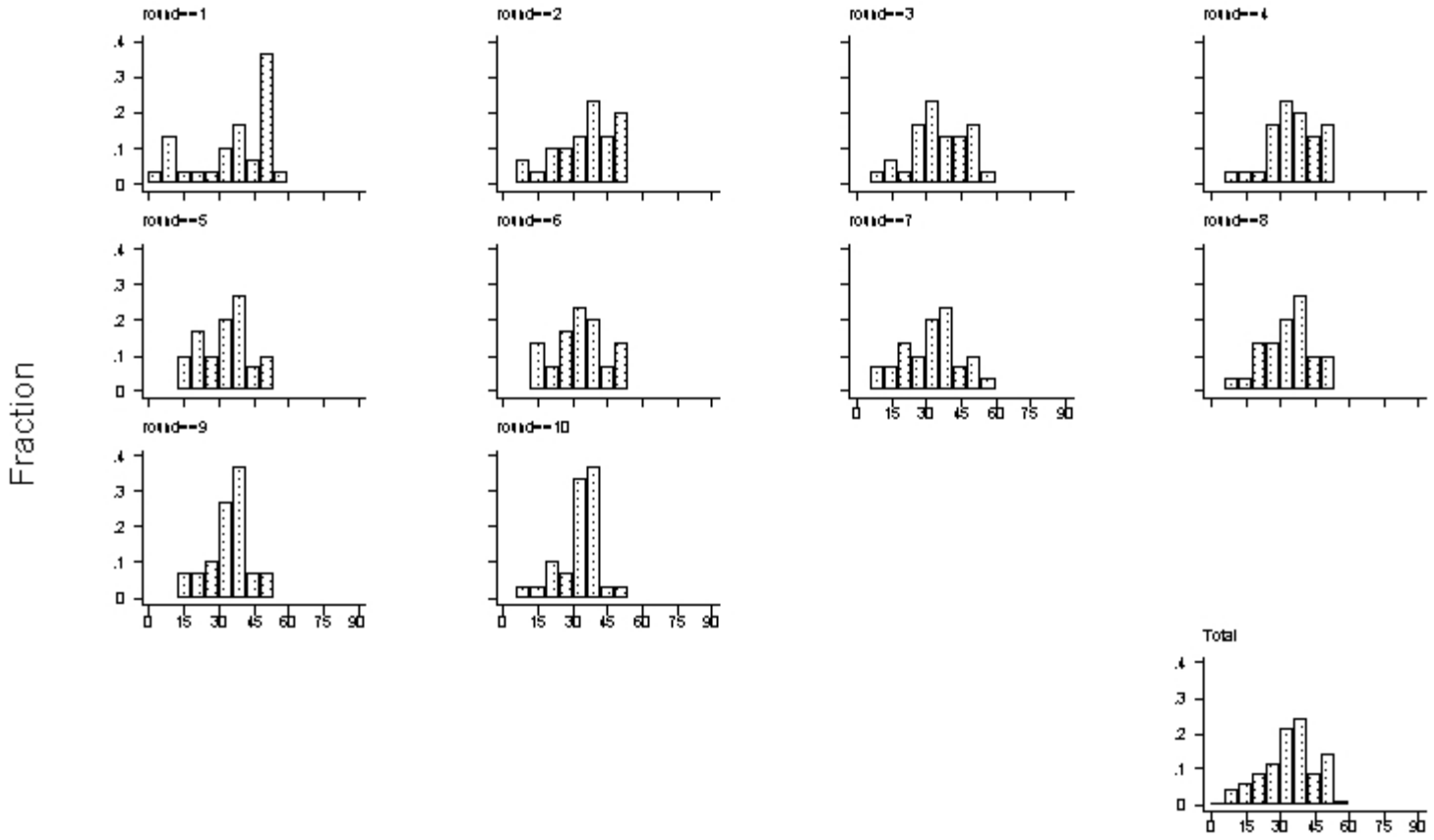

Figure A2: Percent Offers in Israeli Experiments, RPOZ Data

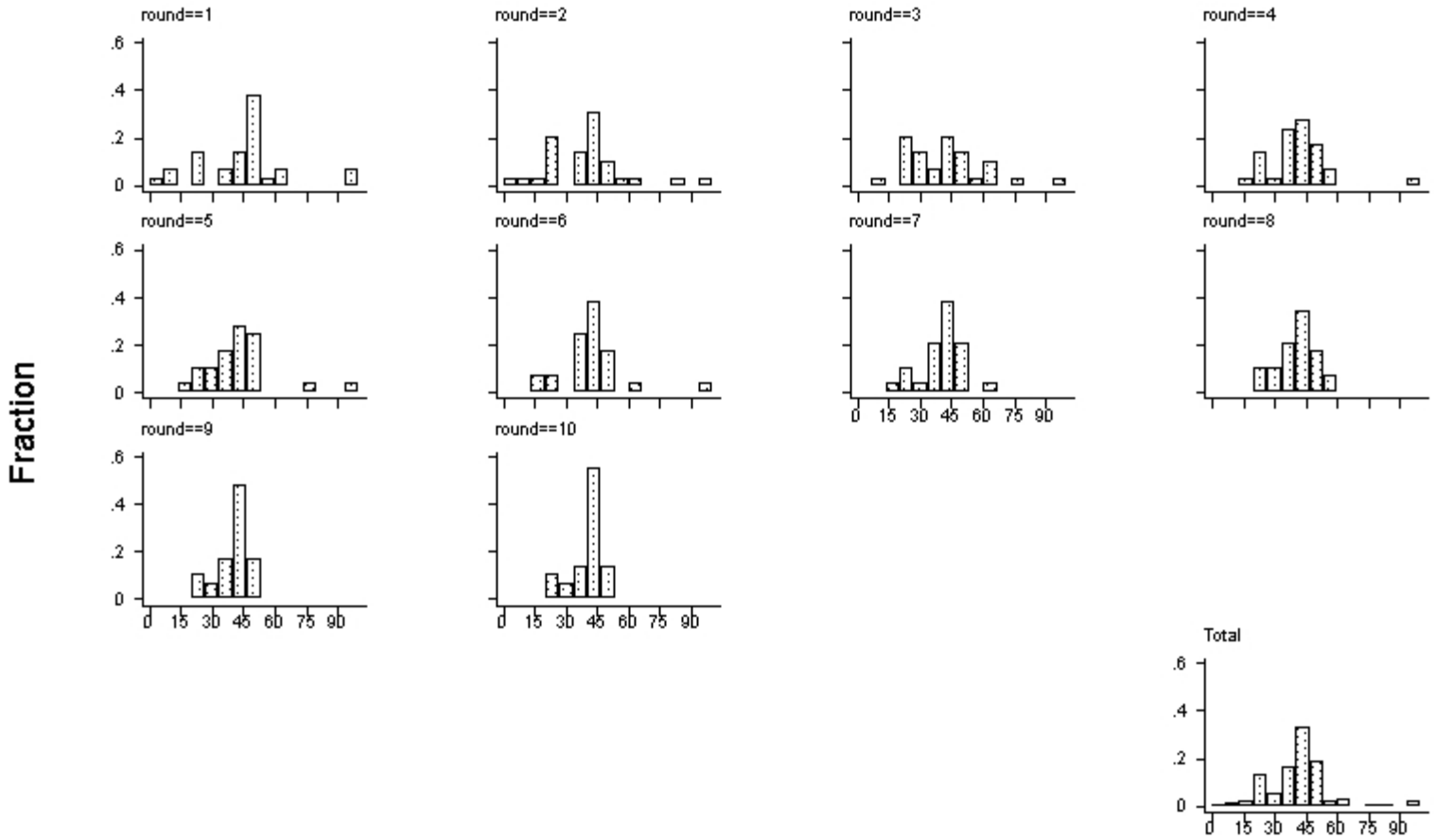

Figure A3: Percent Offers in Japanese Experiments, RPOZ Data

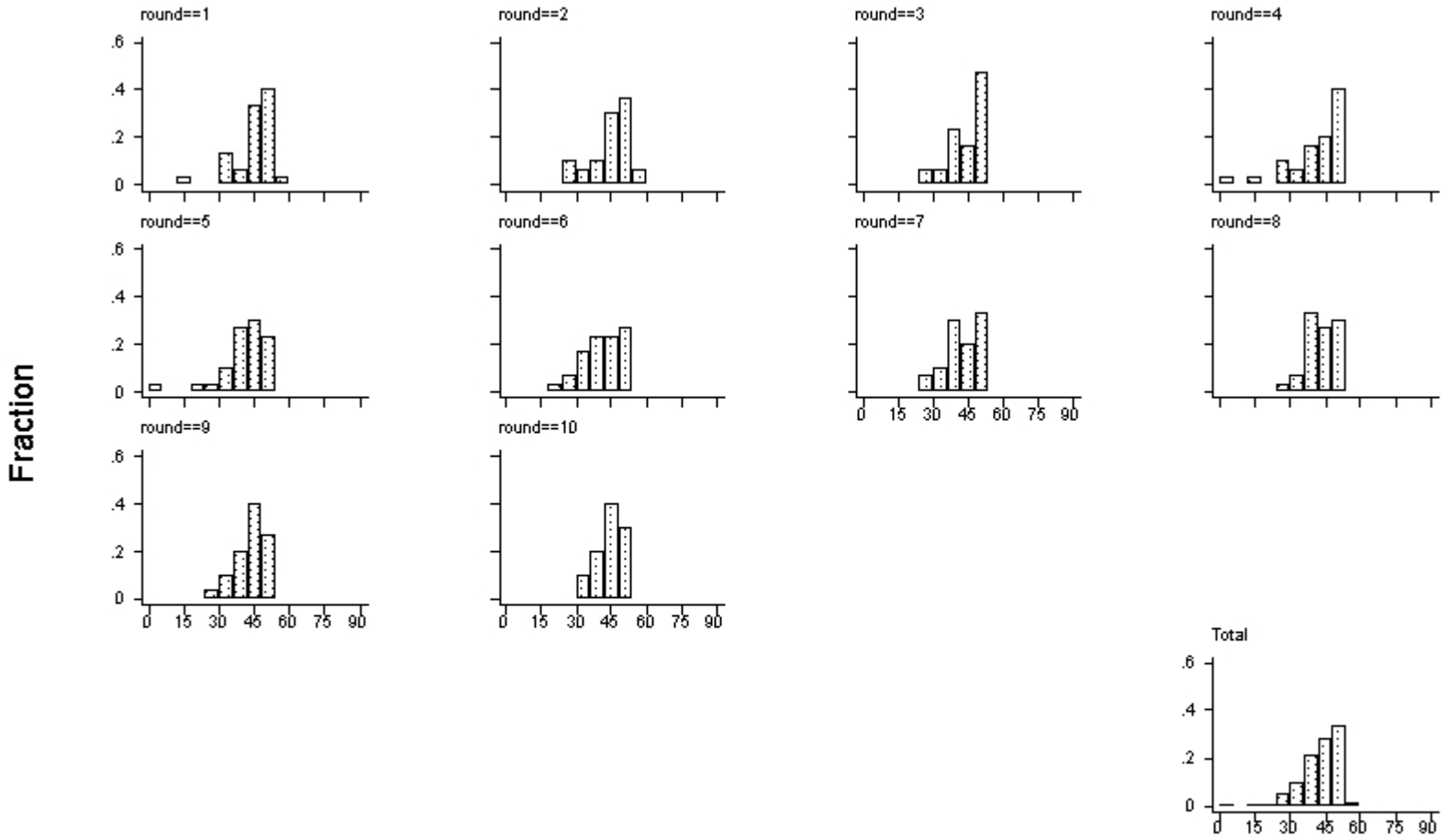

Figure A4: Percent Offers in Yugoslav Experiments, RPOZ Data

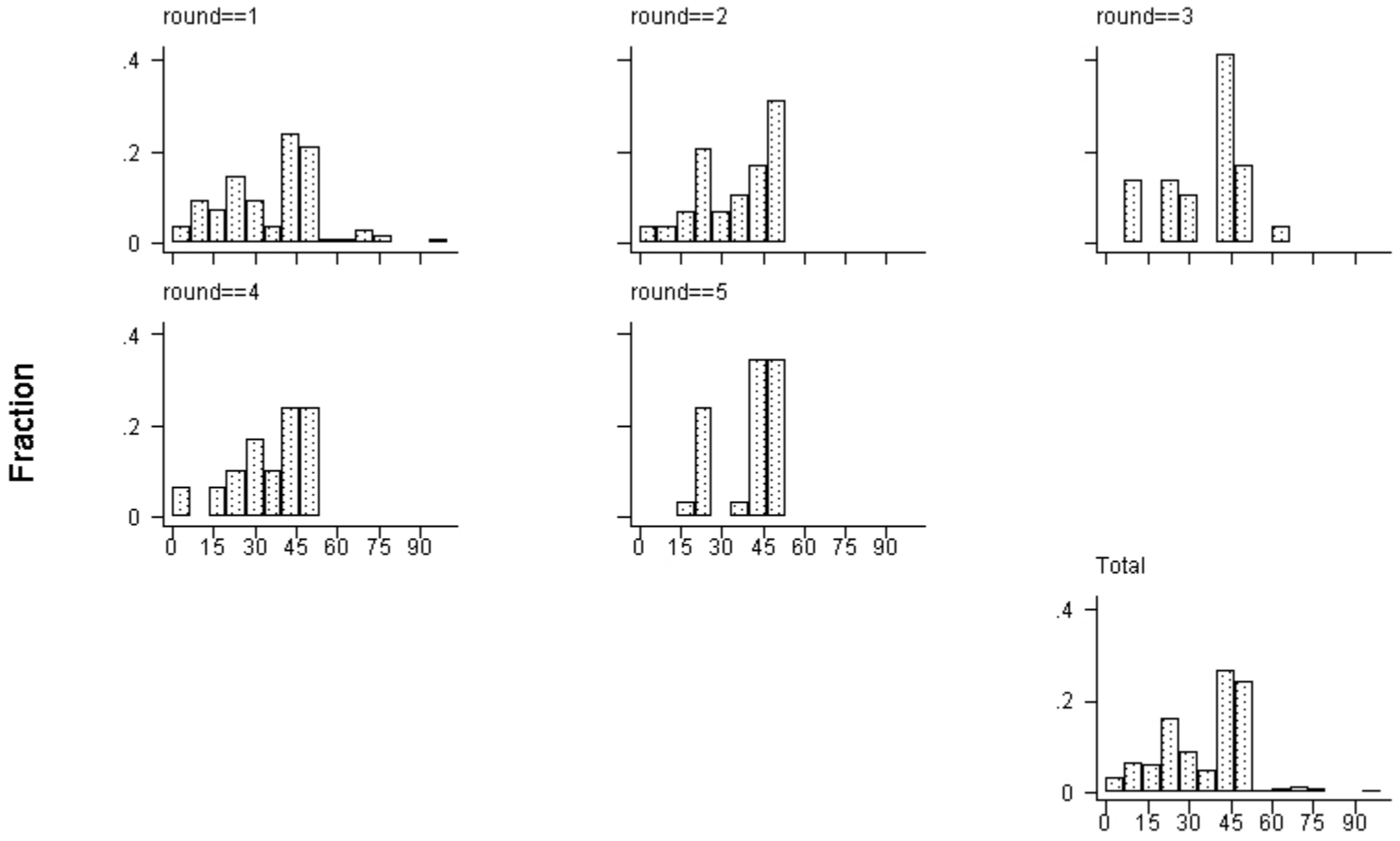

Figure A5: Percent Offers in U.S. Experiments With New Data

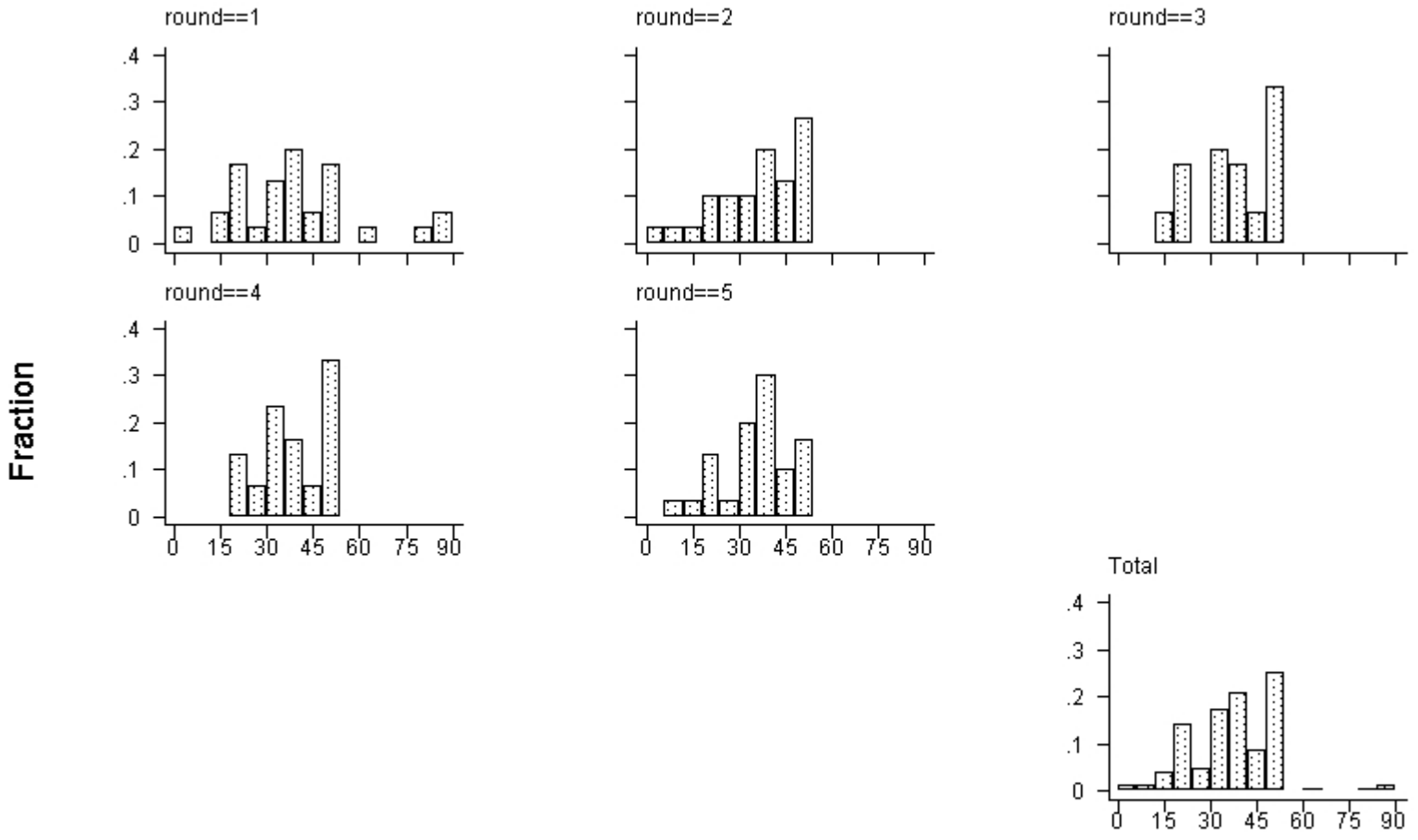

Figure A6: Percent Offers in Russia Experiments With New Data