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## **An Experiment on Intercultural Tacit Coordination - Preliminary Report**

Abitbol, Pablo

Witten/Herdecke University, Germany

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# AN EXPERIMENT ON INTERCULTURAL TACIT COORDINATION

Pablo Abitbol

Department of Economics and Philosophy

Witten/Herdecke University

October, 2009

## PRELIMINARY REPORT

This report presents the results of a replication, with 199 culturally-diverse subjects, of Thomas Schelling's (1957) experiments on tacit coordination. Section 1 introduces the concept of focal point equilibrium selection in tacit one-shot symmetric pure coordination games, as presented by Schelling in his classic article; it then traces its subsequent exploration through experimental research, shows how it has been explained, particularly in terms of culture, and relates that kind of explanation to the experimental and null hypotheses of the present study and its associated predictions. Section 2 describes the design of the intercultural tacit coordination experiment, and section 3 the results. Finally, section 4 presents a very preliminary discussion of the implications of the experiment's results in terms of the cultural explanation of focal point equilibrium selection.

### 1. Introduction

*Coordination* games are those in which the behavior that would lead the players to a jointly preferred outcome is not unequivocally determined by the formal structure of the game<sup>1</sup>. In *pure* coordination games, no jointly preferred outcome involves a conflict of interest among the players, but some outcomes may be Pareto-superior to others. In *symmetric* pure coordination games all jointly preferred outcomes are equally preferred by all the players. The simplest complete

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<sup>1</sup> By contrast, cooperation games are those in which the formal structure of the game *undermines* the choice of strategies that would lead the actors to a jointly preferred outcome.

representation of a one-shot symmetric pure coordination game in strategic form is the following:

		Player Y	
		Strategy C	Strategy D
Player X	Strategy A	1 , 1	0 , 0
	Strategy B	0 , 0	1 , 1

Here, player X faces a choice between strategies A and B, player Y faces a choice between strategies C and D, and both have a common interest (a payoff of 1 unit) in coordinating their choices on any of the two outcomes corresponding to the strategy combinations AC and BD. The problem for the players is that this game has no dominant strategies and that it has two strict Nash equilibria (corresponding to points XA,YC and XB,YD) and a mixed strategy Nash equilibrium (corresponding to both players randomly choosing their strategy with probability 0.5). In a *tacit* one-shot symmetric pure coordination game, the coordination problem for the players thus consists of selecting a behavioral strategy that leads all of them to the same outcome (irrespective of which particular outcome, as long as all coordinate on the same one) without there being any guidance provided by the formal structure of the game, and without the players being able to exchange relevant information between them to do so. Under conventional game-theoretic assumptions, rational actors would not be expected to perform better than chance in selecting the same equilibrium outcome in this kind of games<sup>2</sup>.

However, Schelling (1957) reported a set of informal experiments which showed that human beings outperform chance in selecting the same equilibrium outcome in tacit one-shot pure coordination games. In a situation such as the one depicted above, which could for example be thought of as a game in which two players win a prize if both choose heads or tails at the same time without

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<sup>2</sup> In the Harsanyi and Selten (1988) framework, the structure of this type of games does not provide sufficient criteria in order for payoff-dominant or risk-dominant equilibrium-selection procedures to be implemented.

communicating, game theory would predict a 50% chance of success. In one of a series of informal experiments, Schelling set out to test this prediction by asking 42 people to choose between heads or tails, telling them that they would win the game if they managed to choose the same answer as another fictional player who was given the same instruction. He found that “36 persons concerted on heads... and only 6 chose tails”, outperforming a random distribution of answers. Similar non-random performance was obtained in all other tests.

Schelling’s interpretation was that,

“People can often concert their intentions or expectations with others if each knows that the other is trying to do the same. Most situations – perhaps every situation for people who are practiced at this kind of game – provide some clue for coordinating behavior, some focal point for each person’s expectation of what the other expects him to expect to be expected to do... It is not being asserted that they will always find an obvious answer to the question; but the chances of their doing so are ever so much greater than the bare logic of abstract random probabilities would ever suggest.” (Schelling 1960: 57)

This passage marks the appearance of the concept of *focal point* in game theory. A focal point equilibrium outcome (such as heads in the previous example) is one which is selected by the players by virtue of it having certain features, exogenous to the formal structure of the game, that allow for the convergence of the players’ behavioral expectations. In trying to explain focal point equilibrium selection, Schelling conjectured that

“Finding the key, or rather finding a key – any key that is mutually recognized as the key becomes the key – may depend on imagination more than on logic; it may depend on analogy, precedent, accidental arrangement, symmetry, aesthetic or geometric configuration, casuistic reasoning, and who the parties are and what they know about each other.” (1960: 57)

Based on Schelling's work, (Lewis 1969) introduced the notion of *salience* in order to explain focal point equilibrium selection. Salience is purported to explain and predict a tendency for a particular equilibrium outcome to be selected by the players because it "stands out from the rest by its uniqueness in some conspicuous respect" (35).

Subsequent experimental research has confirmed Schelling's findings<sup>3</sup>. Most notably, Mehta et al. (1994a) designed an experimental setting in which 178 subjects played a series of "matching games" of the sort devised by Schelling. In that setting, 87% of the subjects managed to coordinate their choice on heads in the coin toss game, and similar non-random performance was achieved in all of the other matching tests that constituted the overall experiment.

Apart from confirming Schelling's main result, Mehta et al. set out to explore the mechanisms underlying focal point equilibrium selection by distinguishing between, and testing for, three possible types of salience. *Primary salience* is a property of strategies in which players, given their perception that the formal structure of the situation provides "no reason for choosing one way rather than another" (660), recognize *labels* (features of the players' subjective descriptions of the strategies) that make those particular strategies their non-rational object of choice. *Secondary salience* corresponds to strategies which are rationally chosen by players who expect other players to use primary salience, and thus base their choices on their beliefs about "the frequency distribution of primary salience in the relevant population" (661). Finally, *Schelling salience* corresponds to strategies chosen by the players in virtue of their application of "a rule of selection which, if followed by both players, would tend to produce successful coordination" (661).

To test if coordination was achieved through primary salience, on the one hand, or secondary or Schelling salience, on the other, Mehta et al. randomly treated the subjects in two different experimental conditions. In the first condition, the subjects were simply instructed to pick any answer for each game, while in the second condition the subjects were instructed to choose an answer with the intention of

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<sup>3</sup> Comprehensive reviews of the literature on experimental coordination games can be found in Kagel and Roth (1995, Chapter 3) and Camerer (2003, Chapter 7).

coordinating with another player. Players who are just picking would manage to coordinate their responses beyond a random expectation, if they base their choices on primary salience. Players who are explicitly instructed to try to coordinate with other players would outperform those who are just picking, if they base their choices on secondary or Schelling salience. The experiment's results showed that players who were just picking outperformed chance, and those who were explicitly instructed to play so as to coordinate their responses with other players outperformed those who were just picking (672). Therefore, these results reveal the existence of primary salience and indicate that secondary salience and/or Schelling salience play a significant role in focal point equilibrium selection in tacit coordination games<sup>4</sup>.

In their theoretical model, Mehta et al. relate the concept of primary salience to the culture and common experiences of the players:

“Among people with common experiences and cultural backgrounds, we might expect some correlation between what has primary salience for one person and what has primary salience for another. Thus, merely as an unintended result of nonrational play, we might expect the extent of coordination to be greater than would occur if players chose their strategies at random.” (1994a: 660)

According to this explanation, subjects who belong to the same culture, or who have been exposed to common experiences, would tend to perceive the same labels in the available strategies. They would therefore recognize some strategies as being particularly salient, given those labels, and, by choosing accordingly, would unintentionally *appear* to be coordinating up to some extent their behaviors.

By the same token, subjects from different cultures would tend to perceive different labels as the salient features of the available strategies. Thus, a lesser frequency of unintentionally coordinated strategies would be expected within a population of culturally-diverse subjects who are selecting strategies according to primary salience.

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<sup>4</sup> These results were further confirmed in Mehta et al. (1994b).

This implication is consistent with findings from experimental psychology according to which people from different cultures tend to perceive, and direct their attention to, different features of the same narratives or visual configurations, and therefore report different aspects of the same situations as more salient than others<sup>5</sup>. For example, Miller (1984) showed that, when subjects were asked to evaluate a narrative about some acquaintance's social behavior, "at older ages [and thus purportedly through cultural learning], Americans made greater reference to general dispositions and less reference to contextual factors in explanation" than Indians. In another study, Masuda and Nisbett (2006) show that, when asked to report how slightly changed images differed from one another, "compared to Americans, East Asians were more sensitive to contextual changes than to focal object changes", which seems to "suggest that there can be cultural variation in what may seem to be basic perceptual processes". Masuda and Nisbett (2001), report an experiment in which Americans and Japanese subjects, after having been presented with the same set of animated underwater scenes were asked to describe what they had seen. "The results showed that the Japanese (a) made more statements about contextual information and relationships than Americans did and (b) recognized previously seen objects more accurately when they saw them in their original settings rather than in the novel settings, whereas this manipulation had relatively little effect on Americans."

If this cultural interpretation of primary salience is correct, then not only should the frequency of pseudo-coordinated strategies through primary salience be expected to be lower in culturally diverse contexts. The same should also be the case for the frequency of *coordinated* strategic choices achieved through the implementation of secondary salience equilibrium selection mechanisms in contexts of cultural diversity. This, because coordination based on secondary salience depends on the actors' shared beliefs about the expected frequency distribution of responses which are based on primary salience within a given population (Bardsley et al. 2008). This kind of beliefs actors hold about the prevalence of certain strategies in coordination games within a population has been called *cultural beliefs* (Greif 1994,

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<sup>5</sup> For an overview, see Nisbett (2003).

2006); i.e. beliefs that most actors in a given population share about each others' beliefs, by virtue of all belonging, and having a common sense of belonging, to the same community<sup>6</sup>. Thus, secondary salience would provide for lower levels of coordination in an intercultural coordination game because the players don't share the same cultural beliefs.

Since the third mode of explanation of focal point coordination, Schelling salience, involves the rational application of a rule of equilibrium selection (Sugden 1995), it can in some occasions coincide with secondary salience, which would correspond to the rule "choose the strategy that you believe to have more primary salience among the players". In that case, the expected coordination in an intercultural game would be the same as that expected to be achieved by choosing strategies according to secondary salience. But if actors who play according to Schelling salience recognize a rule which, if followed by all, would yield better expected results than those expected to be achieved by acting according to secondary salience, they will follow that other rule. The reasoning process whereby actors form those rules of selection and decide to act upon them in pure coordination games, has been modeled in terms of common labeling procedures by Sugden (1995), who describes them as shared languages based on "common elements in the culture, experience or psychology of the players" (541). Thus, with Schelling salience too, less coordination should be expected in intercultural games.

In sum, the three modes of explanation explored in the literature about focal point equilibrium selection, and particularly those in the experimental literature related to the concept of salience, resort to a shared culture as one possible cause of coordination. The implication is that less coordination should be achieved in coordination games played by culturally diverse subjects than in coordination games played by culturally homogeneous actors; this is the experimental hypothesis of the present study (the null hypothesis thus being that coordination does not significantly

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<sup>6</sup> Cultural beliefs can be analyzed as *conventions*: mutually expected behavioral regularities that help solve recurrent tacit coordination problems within a given population, because (almost) everyone in that population expects each other to expect from each other conformity with that regularity (Lewis 1969: 58, 78). In this analysis, the *precedent* of a strategy having successfully solved coordination problems in the past is what bears its salience (36).



vary, when the same coordination game is played by culturally diverse subjects and when it is played by culturally homogeneous actors).

## 2. Experimental design

The present study closely follows Schelling's (1957) original design, except in three aspects. First, a larger sample of subjects was used (N=199); Schelling's sample varied in number from question to question, being 42 the highest number of participants<sup>7</sup>.

Second, the phrasing of Schelling's original questions was slightly altered in order for them to make sense to an international pool of participants and in order to adapt them to the design restrictions of an online survey platform (see Table A in the Appendix). The largest modification of an original question had to be done to one of the most famous questions asked by Schelling to his subjects, which involved choosing a place to meet in New York City, and for which the focal point equilibrium had been Grand Central Station. In the present study, that question was altered so that it involved the subjects having to choose a capital city in which to meet in an imaginary trip around the world. Additionally, Schelling's question number nine was excluded and replaced with the map game described in Schelling's paper outside the list of numbered questions. This was done because Schelling's question number nine refers to an election procedure of which the precise wording can be confusing for an international pool of participants. On the other hand, the map game is more straight forward and offers interesting data in terms of coordination through visual salience.

Third, the participants were randomly assigned in two different experimental conditions, to test for variations in coordination between actors that were primed to imagine that the other participants in the game were culturally diverse, and actors who were not primed in such a way. In the non-culturally primed condition, the participants were just asked to try to coordinate their responses with anonymous playing partner who would be randomly matched with them by a computer. They were then presented with the set of questions, and finally they were asked to answer a

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<sup>7</sup> Mehta et al. (1994 a, b) sample sizes were 178 and 120 respectively.

set of questions about their demographic information. In the culturally primed condition, the participants were told that their playing partner would be someone “from another culture”, the phrasing of the set of questions always referred to a playing partner from another culture and they were asked to respond the demographic questions – which included several culturally-related questions – before they started to play the game. Besides that, the name of the game – which appeared in every page of the online survey – was “coordination game” for one condition and “intercultural coordination game” for the other.

An informal pilot test was conducted to check if the questions made sense to an international sample of participants, if the wording of the introduction and the questions managed to involve the participants in a coordination game situation, and to check if the priming method used to treat the separate experimental conditions worked correctly. A convenience sample of participants was selected from a personal mailing list. Half of them were sent the culturally primed set of questions and half of them were sent the non-culturally primed set of questions. Their responses were analyzed and some of the participants were interviewed, in order to make adjustments to the online survey’s final design. From the pilot test’s results, some minor changes were incorporated to the wording of the questions and a greater emphasis was placed on words such as “game”, “play” and “win” in the phrasing of the introduction to the games and of the questions, in order to increase the participant’s involvement with the spirit of the games<sup>8</sup>.

Two surveys were built – one for each condition – in an online survey platform<sup>9</sup>, and invitations to play the games were issued to 556 members of the TED Talks online community<sup>10</sup>. The TED Talks community gathers all registered members in the TED Talks website. The TED Talks are an annual event in which innovators and key figures from a wide variety of disciplines, professions and walks of life present their work. People register in the website in order to receive updates, participate in discussions and to participate in a collective project to translate the talks into languages other than English. Accordingly, it is presumable that these are people

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<sup>8</sup> The results of the pilot test can be found in the following URL: <http://bit.ly/1sCHqe>

<sup>9</sup> URL: <http://www.zoomerang.com>

<sup>10</sup> URL: <http://www.ted.com>

who have an adequate understanding of the English language and who have an active interest in knowledge and ideas. Thus, participants from the TED community could be expected to respond to an invitation to participate in an academic study (without having any monetary incentive) and to understand the instructions and questions of the game. These invitations were sent individually by email to randomly selected registered members of the TED Talks webpage, taking into account the following criteria. First, roughly the same number of men and women were invited to participate in the coordination games. Second, invitations were sent to roughly the same number of people (~13) from 45 geographically dispersed and culturally varied countries. Only people who had displayed recent activity in the TED website were invited. The invitations referred to a “coordination game” or to an “intercultural coordination game” depending in what treatment condition the member they were sent to was assigned. The surveys were programmed such that they could only be taken once from any given computer terminal, to prevent multiple answers from a single individual. Finally, after completing the game’s questions the participants were directed to an outlet which was set up in a blogging platform, in order to inform them about the nature and results of the experiment<sup>11</sup>.

Table B in the Appendix presents the demographic information reported by the participants. They represent 45 countries, of which the highest number of respondents from a single country (the U.S.) represent 8%. The subjects were asked to classify themselves in one of 10 different cultural clusters, which were defined, with some wording modifications, according to the cultural categories of the Inglehart-Welzel Cultural Map of the World, from World Values Survey<sup>12</sup>. The highest participation came from persons who identified themselves with English-speaking culture (24%), Central European (14%) and Latin American (12%), comprising among them 50% of the sample. East Asian, Middle Eastern and South European participants comprised 11%, 9% and 8% of the sample, and South Asian, East European, North European and African, 7%, 6%, 5% and 4% respectively. Respondents were 51% women and 49% men; most of them 72% between 20 and 39 years old. 48% of the participants completed university education, and almost 32% hold a master’s degree; 13% have only studied up to high school and 8% have PhDs.

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<sup>11</sup> URL: <http://deliberationlab.blogspot.com/>

<sup>12</sup> URL: <http://www.worldvaluessurvey.org/>

The sample of participants has a balanced distribution of job descriptions, ranging from student and unemployed, to independent and those who work for the private and public sectors; very few are retired. There is also a quite balanced distribution of religions in the sample, with pluralities of atheists (26%), Muslims (17%), agnostics (16%) and Catholics (14%); the rest of the sample (27%) corresponds to “other”, Protestant, Jewish, Hindu and Buddhist.

### 3. Results

The following table shows the percentage of people who gave the most frequent answer for each question, compared to Schelling’s results and some of Mehta et al. (1994a) subjects’ answers to similar questions.

<b>Intercultural Coordination Levels compared with Schelling (1957) and Mehta et al. (1994a)</b>			
	Schelling (N~42)	Mehta et al. (N~178)	Intercultural (N~199)
Q.1. COINS	Heads, 86%	Heads, 87%	Heads, 69%
Q.2. PICKANUM	7, 100 and 13, 90%		7, 100 and 13, 67%
Q.3. GRID	Upper left, 59%, and 93% in diagonal.		Upper left, 18%, and 52% in diagonal.
Q.4. CITY	Absolute majority meet at Grand Central	London 56%	London and Paris, 54%
Q.5. TIME	Virtually all at 12 noon		12 noon, 30%
Q.6. SAYANUM	1, 40%	1, 40%	7, 16%; 2, 14%; 1, 8% (= 38%)
Q.7. MONEY	1 million, 29%		1 million, 26%
Q.8. PILES A/B	50/50, 88%		50/50, 83%
Q.9. MAP	Bridge, 88%		Bridge, 25%

Although most proportions of coordinated responses in the intercultural sample are smaller than those obtained in Schelling's experiment (and the comparable results from Mehta et al.), they show significant levels of coordination above what would be expected by chance. CHI square tests were performed for each question to test for cultural differences in the particular focal points into which the participants coordinated. None of the tests reveals significant differences between cultures at the 0,05% significance level. The results are presented in Table C of the Appendix. Coordination levels were also compared between treatments, and no significant statistical difference (CHI square,  $\alpha = 0,05\%$ ) was observed between the culturally primed participant's coordination levels and those of the non-culturally primed participants (see Table D in the Appendix). These results, although in most instances weaker and in some instances (GRID, TIME and MAP) much weaker than Schelling's results (and comparable Mehta et al. results), still do not allow for the null hypothesis to be rejected.

Caution has to be taken when interpreting the bearing of these results upon the disconfirmation of the experimental hypothesis. Although this is the first study to investigate tacit coordination within a sample of extremely culturally diverse subjects, the method to which is had had to resort in order to comprise the largest possible diversity (online surveys applied to members of an online community), still presents serious limitations.

First, there is no way in which an experimenter can clarify the questions and the spirit of the game to the participants, nor way in which they can be monitored in detail. Second, cultural diversity in this study was related, first to an effort to build a widely international sample of participants, and second to the participants self classification into broad categories. Apart from that, this method can be possibly hiding and distorting important details of the participants actual "working culture", the fact that they all speak English and that they all belong to a like-minded community formed on the basis of their shared interests. In any case, and taking into account these limitations, the results indicate that – at least within the bounds of the

TED Talks website members community – coordination can still be achieved at significant levels among culturally diverse actors.

#### 4. Discussion

The hypothesis that less coordination should be expected to be achieved in coordination games played by culturally diverse subjects than in coordination games played by culturally homogeneous actors can not be confirmed by the results presented in this study. Even though less coordination was achieved in these games, as compared with Schelling's results, the variation of results is not significant enough to reject the null hypothesis. Further, subjects that were primed to play with a partner from another culture did not do significantly better or worse than those who were not primed. Thus, within the context of this study, some doubt can be cast upon (exclusively) cultural explanations of focal point equilibrium selection.

Schelling's own hints towards cultural explanations of salience and focal point equilibrium selection, subsequent cultural explanations such as the ones reviewed at the beginning of this report, and models of repeated coordination games that show how certain conventions and norms can emerge, evolve and be sustained within a population (e.g. Skyrms 1996 and Young 1998), seem to all have conditioned an understanding of the role of culture in strategic interaction that tends to point towards the idea that it is culture what causes coordination. The results of this study show that significant levels of coordination can emerge in extremely culturally diverse populations. It may well be that it is also important to consider that a universal human capacity for coordination might be what causes culture to emerge in the first place.

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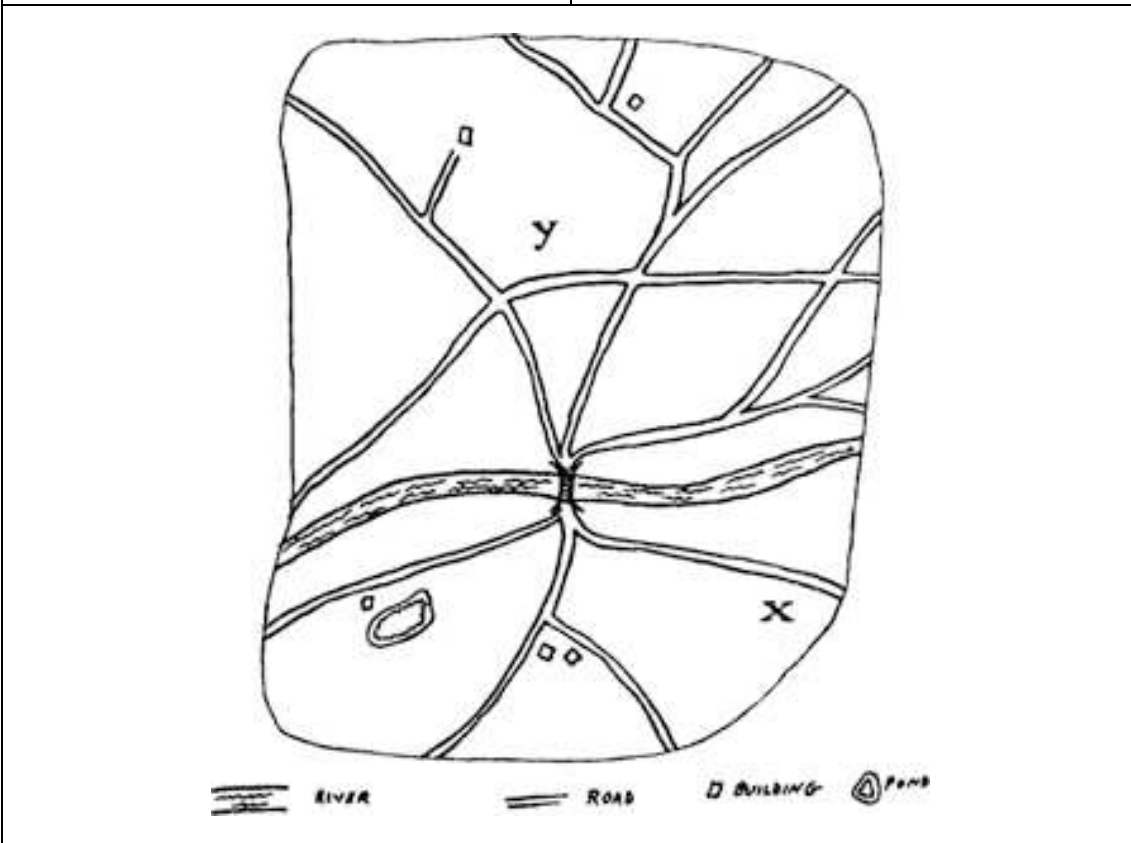


## APPENDIX

<b>Table A</b>																																	
<b>Schelling's original questions</b>	<b>Intercultural experiment questions</b>																																
1. Name "heads" or "tails." If you and your partner name the same, you both win a prize.	1. Name "heads" or "tails." You win if you and your playing partner name the same.																																
2. Circle one of the numbers listed in the line below. You win if you all succeed in circling the same number.	2. Check one of the numbers listed below. You win if you and your partner succeed in checking the same number.																																
7 100 13 261 99 555																																	
3. Put a check mark in one of the sixteen squares. You win if you all succeed in checking the same square.	3. Choose one of the sixteen squares in the image displayed below. You win if you and your partner choose the same square. Please remember your choice and go to the next page to mark your answer.																																
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<table border="1" style="display: inline-table; border-collapse: collapse; margin-right: 20px;"> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table> <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td></tr> </table>																	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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4. You are to meet somebody in New York City. You have not been instructed where to meet; you have no prior understanding with the person on where to meet; and you cannot communicate with each other. You are simply told that you will have to guess where to meet and that he is being told the same thing and that you will just have to try to make your guesses coincide.	4. You are traveling around the World and you agree to meet with your partner in a capital city. Before you can agree in which capital city you will meet, communication is lost. Both of you will have to guess where to meet and will have to try to make your guesses coincide. Which capital city do you go to?																																
5. You were told the date but not the hour of the meeting in No. 4; the two of you must guess the exact minute of the day for meeting. At what time will you appear at the meeting place that you elected in No. 4?	5. You were told the date but not the hour of the meeting of the previous question. The two of you must guess the exact minute of the day for meeting. At what time will you appear at the meeting city that you elected?																																
6. Write some positive number. If you all write the same number, you win.	6. Write a positive number. You win, if both you and your partner write the same number.																																
7. Name an amount of money. If you all name the same amount, you can have as much as you named.	7. Name an amount of money. Imagine that if you both name the same amount, you can have as much as you named.																																

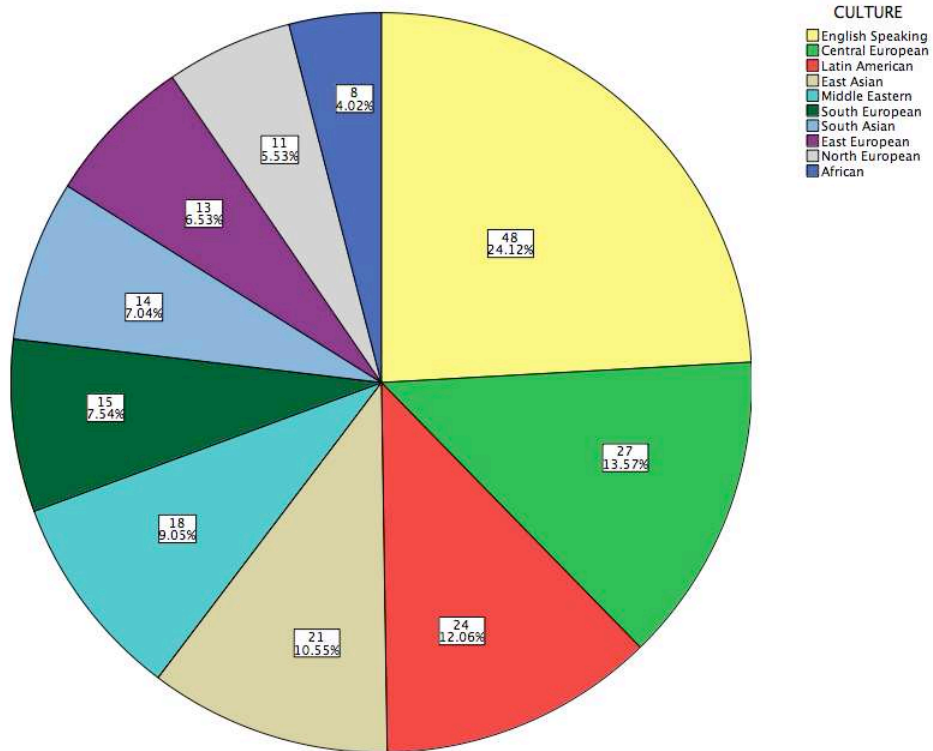
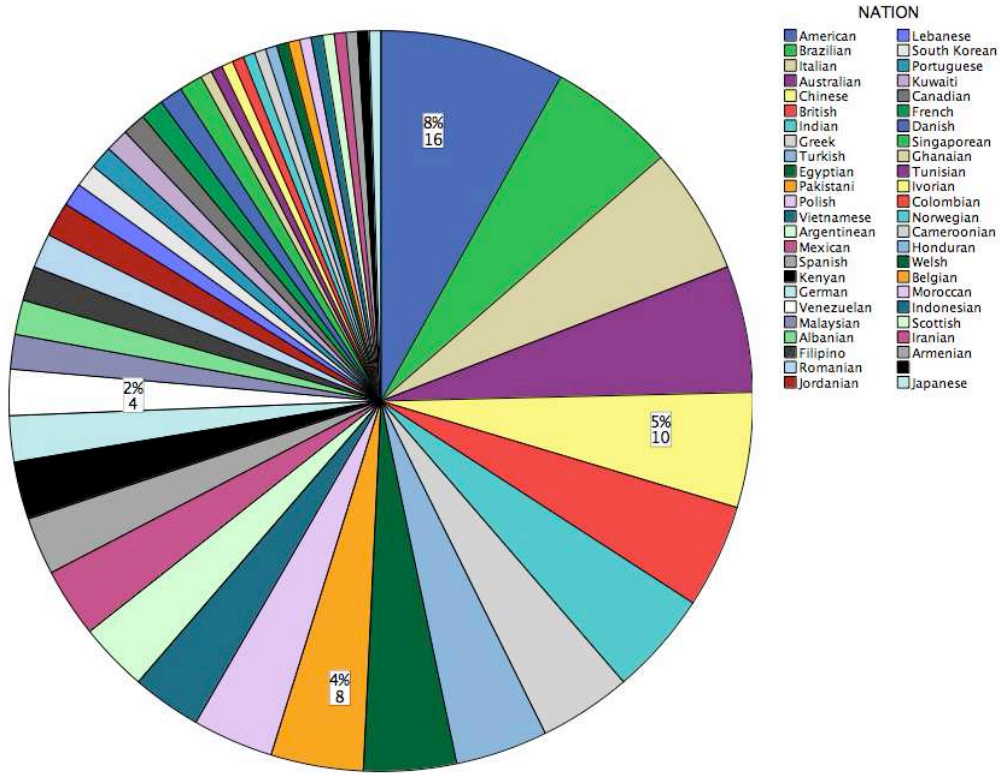
<p>8. You are to divide \$100 into two piles, labeled A and B. Your partner is to divide another \$100 into two piles labeled A and B. If you allot the same amounts to A and B, respectively, that your partner does, each of you gets \$100; if your amounts differ from his, neither of you gets anything.</p>	<p>8 You have to divide \$100 into two piles, labeled A and B. Your partner also has to divide \$100 into two piles, labeled A and B. Imagine that if you put the same amounts in A and B that your partner does, each of you gets \$100; if your amounts differ from his, neither of you gets anything. How much would you put in each pile?</p>
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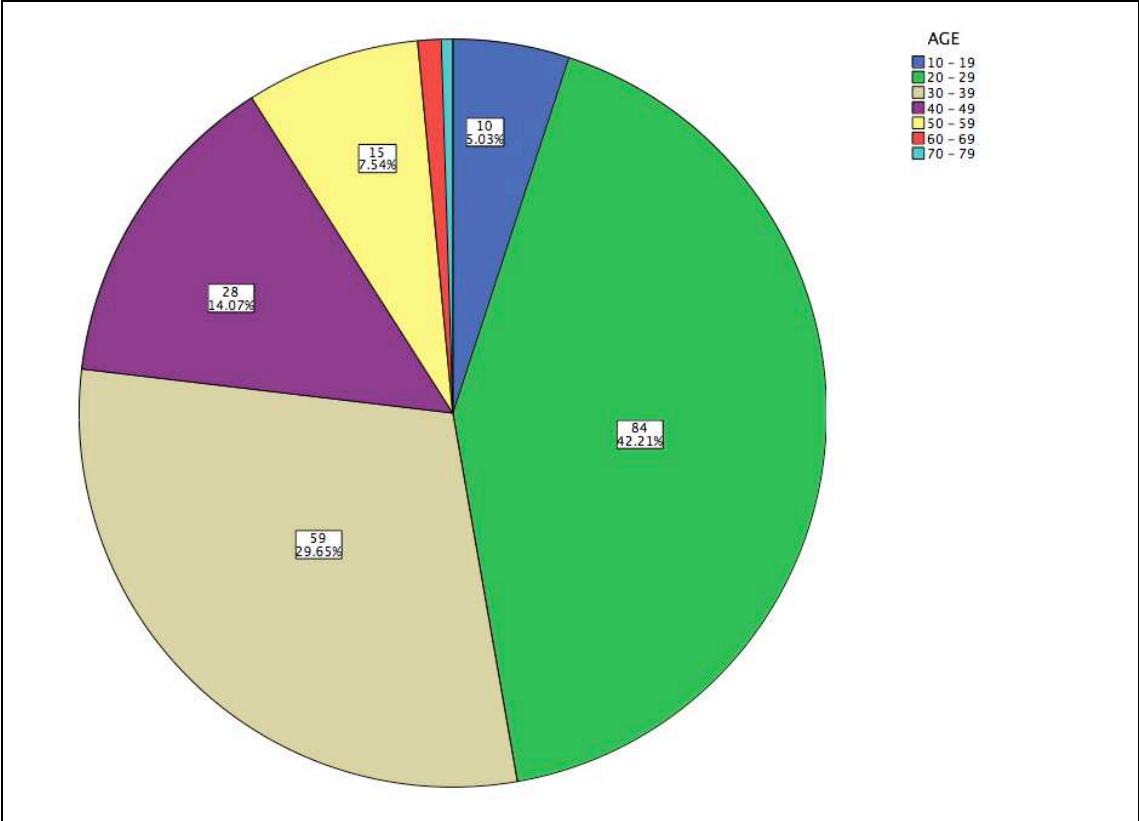
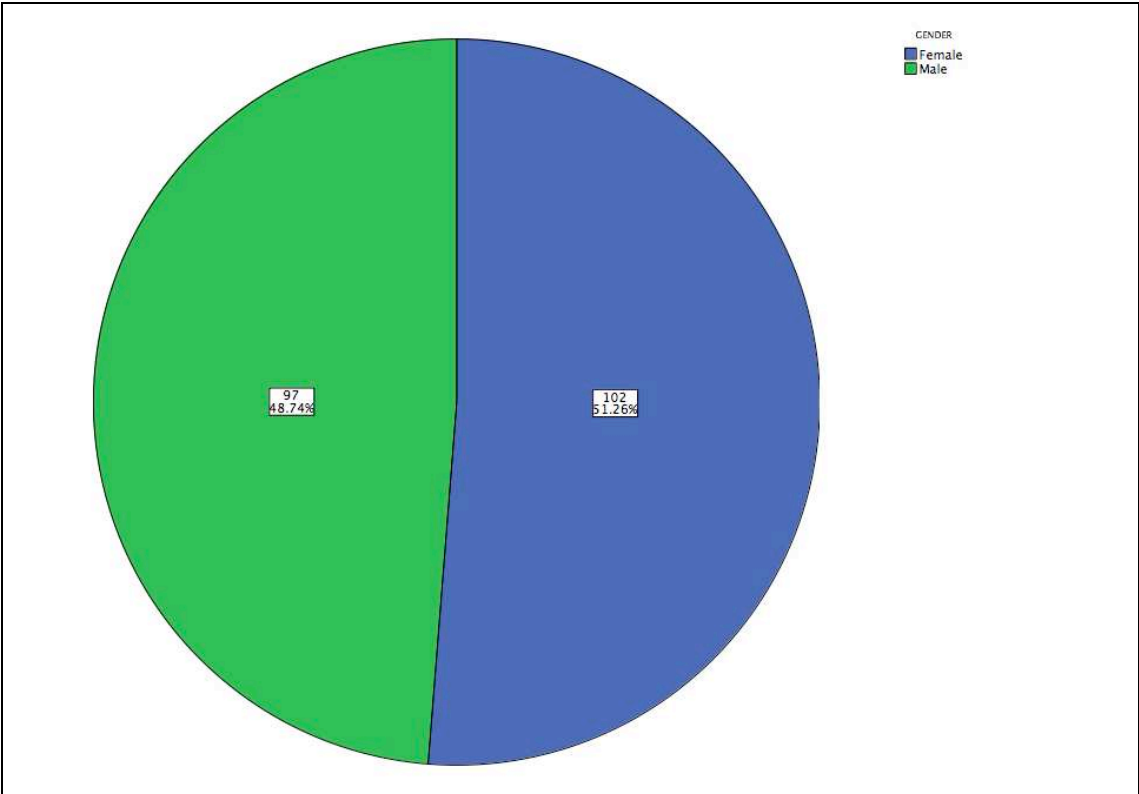
<p>(9. Two people parachute unexpectedly into the area shown, each with a map and knowing the other has one, but neither knowing where the other has dropped or able to communicate directly. They must get together quickly to be rescued. Can they study their maps and coordinate their behavior? Does the map suggest some particular meeting place so unambiguously that each will be confident that the other reads the same suggestion with confidence?)</p>	<p>9 You and your partner parachute unexpectedly into the area shown below, each with this map and knowing that the other has the same map, but neither knowing where the other has dropped or able to communicate directly. You must get together quickly to be rescued. Name the location on the map where you would go.</p>
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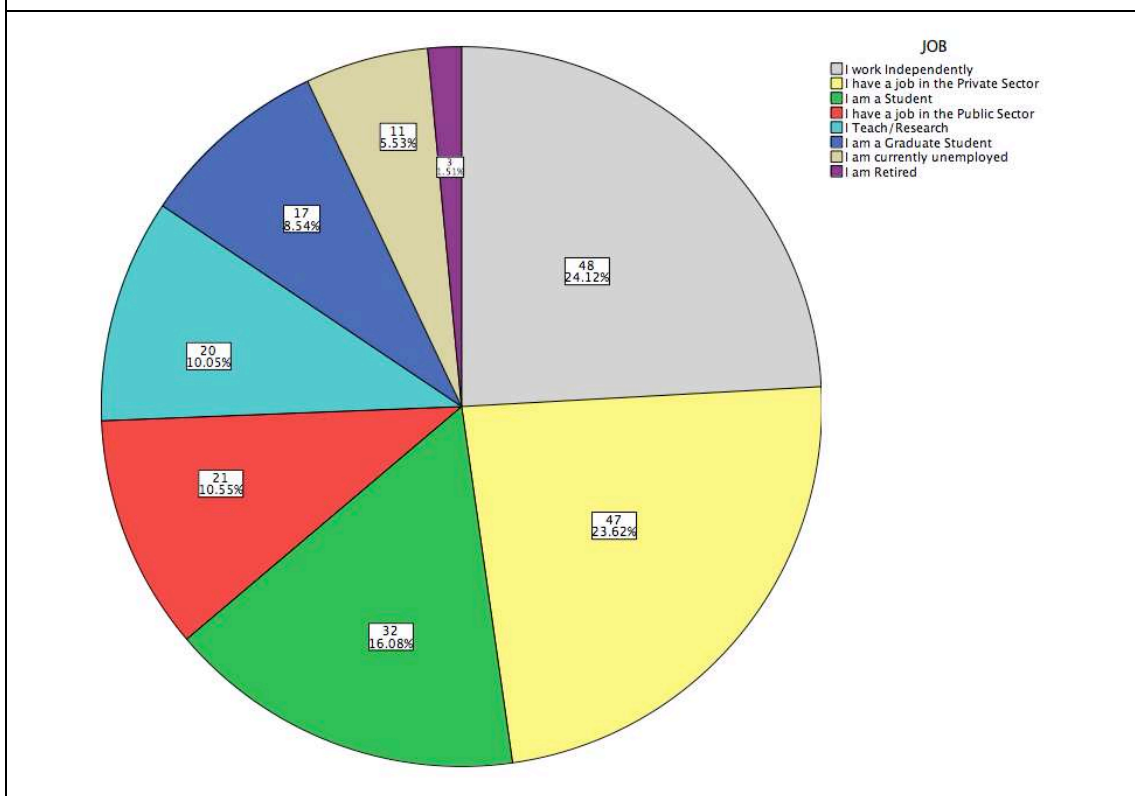
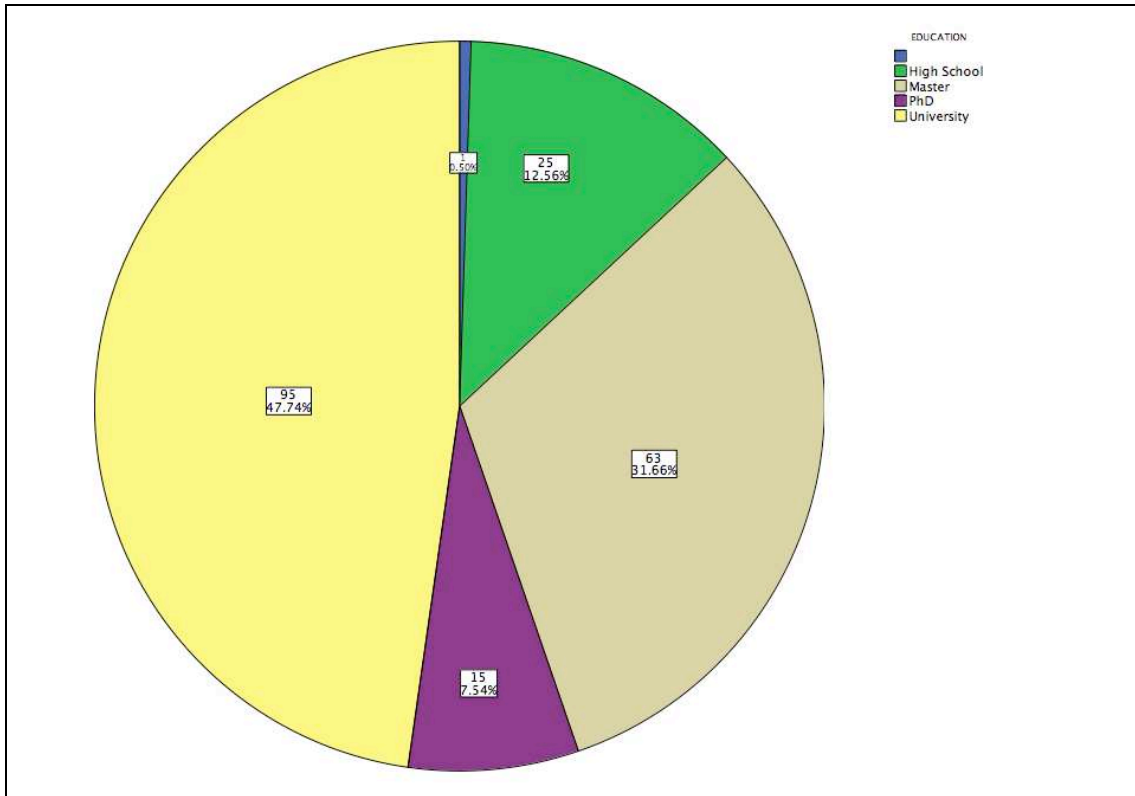


**Table B**

**Demographics Reported by Participants**







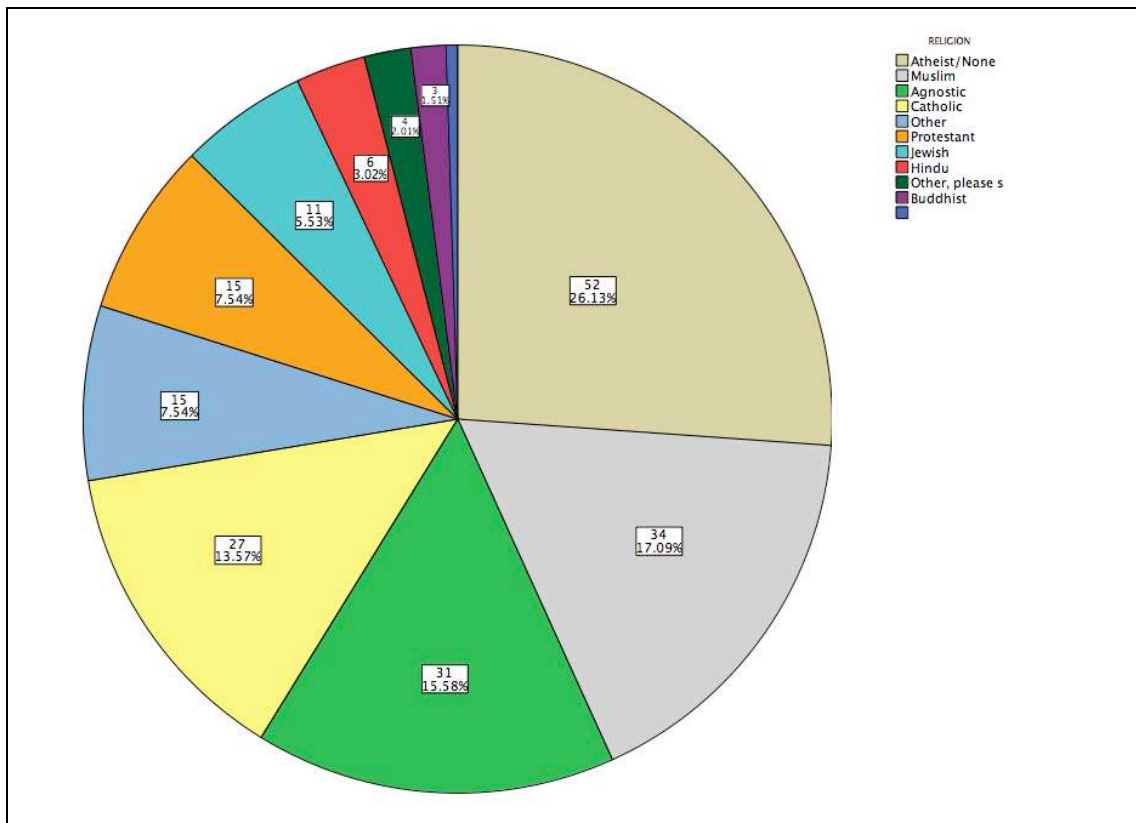


Table C			
CHI square Tests for Effects of Culture on Focal Point Selection			
Question	CHI square	Degrees of freedom	Significance
1. COIN	4.146	4	.387
2. PICKANUM	2.123	4	.713
3. GRID	4.166	4	.384
4. CITY	3.580	4	.466
5. TIME	9.573	4	.048
6. SAYNUM	2.948	4	.567
7. MONEY	3.979	4	.409
8. PILES A/B	5.381	4	.250
9. MAP	2.314	4	.678

<b>Table D</b>			
CHI Square Tests for Differences in Coordination Levels Between Treatments			
Question	CHI square	Degrees of freedom	Significance
1. COIN	0.006	1	.938
2. PICKANUM	0.184	1	.668
3. GRID	0.002	1	.963
4. CITY	0.561	1	.454
5. TIME	0.013	1	.908
6. SAYNUM	2.614	1	.106
7. MONEY	0.001	1	.970
8. PILES A/B	0.852	1	.356
9. MAP	3.483	1	.062