Traditional Supernatural Beliefs and Prosocial Behavior*

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Abstract: In sub-Saharan Africa, traditional religious beliefs, including belief in witchcraft, black magic, or fetishism, are widespread. Some have hypothesized that these beliefs help to sustain cooperative behavior in a setting where the state is often absent. Others have documented that, at least at a macro-level, such beliefs are negatively associated with prosocial behavior. We contribute to a better understanding of the causal effects of these traditional religious beliefs by using lab-in-the-field experiments in the Democratic Republic of the Congo. Participants complete a range of experimental tasks where one player chooses whether to act in a pro-social manner towards another player. Participants are randomly assigned to another player that has either a strong or weak belief in witchcraft and this information is known by the players. We find that participants act less prosocially towards randomly-assigned partners who believe more strongly in witchcraft. We also find that antisocial behavior is more socially acceptable and prosocial behavior less socially acceptable when playing with a partner who believes more strongly in witchcraft. Our findings suggest that the negative relationship between witchcraft and prosocial outcomes observed in the data may, in fact, be due to causal effect of the presence of traditional witchcraft beliefs on people's behavior.

Keywords: Africa; religion; witchcraft; cooperation; altruism.

JEL Classification: O12; Z12; Z13

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1. Introduction

Belief in the supernatural is nearly universal across societies. These supernatural beliefs range from beliefs in monotheistic religions that feature a moralizing high God to less centralized religious beliefs that involve ancestors, witchcraft, and sorcery. There is accumulating evidence that monotheistic religions – namely, those with moralizing "Big Gods" like Christianity and Islam – have important positive effects on the level of cooperation in a society (Norenzayan, 2013, Norenzayan, Shariff, Gervais, Willard, McNamara, Slingerland and Henrich, 2016). In contrast, despite being widespread and pervasive in the daily life of much of the world, we still have limited evidence of the causal effects of less centralized religious beliefs that involve ancestors, witchcraft, and sorcery.

The prevalence of these beliefs continues to be widespread in sub-Saharan Africa. For example, a 2010 PEW survey of approximately 25,000 respondents from 19 sub-Saharan Africa countries finds that 45.6 percent of respondents report believing in "witchcraft." Similarly, 42.4% of respondents report using traditional religious healers. Such beliefs co-exist with the "Big God" religions. In the same survey, 96 percent of respondents report being either Christian or Muslim. These beliefs are not confined to the African continent but are also prevalent throughout the world and throughout history (Thomas, 1997, Vyse, 2014, Gershman, 2015).

The existing evidence for the causal effects of traditional supernatural beliefs, which is based on cross-sectional correlations, shows that witchcraft is associated with less trust in sub-Saharan Africa (Gershman, 2016). However, there is concern that the correlations are driven by selection and unobserved heterogeneity. For example, if individuals who are in economically dire circumstances or who have experienced adverse shocks are more likely to turn to traditional supernatural beliefs and practices, then this would induce a negative correlation between witchcraft and better social outcomes. In addition, previous studies have found that, within Africa, the slave trade is associated with more distrust (Nunn and Wantchekon, 2011) and with a stronger belief in witchcraft (Gershman, 2019), thus the slave trade may confound these correlations.

If one interprets the negative relationship between witchcraft and trust as causal, then this raises the question of why people would choose to engage in witchcraft if it is associated with lower trust. The dominant explanation for the prevalence of "Big God" religions is that they provide benefits for the societies who adopt them (Norenzayan, 2013). If traditional indigenous

religions do not provide benefits, but instead result in lower levels of trust, then it is puzzling that these beliefs have been so persistent and continue to be widespread, even with the spread of Christianity across the continent.

A potential explanation is that traditional supernatural beliefs have benefits. It is possible that in the absence of a well-functioning state and a resulting rule of law, beliefs in witchcraft help to ensure good behavior. If individuals believe that bad behavior might be identified and punished through the use of witchcraft, then the presence of witchcraft might induce more cooperative or pro-social behavior (Platteau, 2009). Therefore, similar to how "Big God" religions induce good behavior, traditional supernatural beliefs may do the same. Instead of the threat being that you might be sent to hell rather than heaven, it is that someone will harm you through the use of magic.[1] (Holland, 2001, Ch. 1) describes this consequence of traditional beliefs writing "belief in witchcraft exerts a unique influence on society. It promotes polite behavior, serving as a warning against hostile words and deeds. People are constantly reminded not to offend others because they might turn out to be witches... A sort of negative morality results: it is better not to make enemies because hatred is the mainspring of witchcraft."

This study aims to improve our understanding on these issues by providing estimates of the causal effects of traditional supernatural beliefs using lab-in-the field experiments implemented in northern Democratic Republic of Congo (DRC). While it is not feasible to randomize the beliefs of a respondent in our sample, we are able to randomize the beliefs of the person they are paired with in an experimental task. We do this by randomly matching players in a behavioral game and providing some information about the other player. Participants are not given the exact identity of the other player but are given the following information: their age group, sex, education level, whether they are a coethnic, strength of belief in the Christian God, strength of belief in witchcraft, and whether they grew up in the city of the study. The other player is also given the same information about them and both players know this.

Our sample comprises 520 individuals who live in a city in the north of the Democratic Republic of the Congo. We find that the sample is representative of your typical sample from modal sub-Saharan Africa. The population reports believing strongly in both witchcraft and in Christianity. Everyone reports believing strongly or very strongly in Christianity with 21.5%

[1] There are many examples of witchcraft being used for redistributive justice. For a description of this among the Kom of Cameroon see Mavhungu (2012, pp. 47–48).

reporting believing 'strongly' and 78.5% reporting believing 'very strongly'. In terms of witchcraft beliefs, 46.9% report believing 'very strongly', 26.0% report believing 'strongly', 10.6% report 'neither believing or disbelieving', and 16.5% report a 'weak' or 'very weak' belief. Thus, as in much of sub-Saharan Africa, our population both believes in Christianity but also has traditional religious beliefs.

We implement the following three games: the Dictator Game (DG), Choose Your Dictator Game (CYD), and Joy of Destruction Game (JOD). In each game, two rounds are played, each time with a different randomly-chosen player. In the DG, player 1 chooses how much of an endowment of 1000 Congolese Francs (CF) to allocate to player 2. This amount is equal to about half a day's wage. In the CYD game, a player chooses a person to play the role of player 1 in the DG. The other player is chosen from two individuals. In the JOD game, player 1 and player 2 are each given an endowment of CF 2000 (which is equal to approximately 2 US dollars, which is about 1 day's wage). Player 1 then can take one of three actions. (1) Do nothing. If she does this both players keep their endowments. (2) Pay CF 200 to reduce the other player's endowment by CF 1000. (3) Pay CF 200 to increase the other player's endowment by CF 1000.

We randomly assign individuals to complete lab experiments with individuals who have different beliefs in witchcraft and examine whether individuals behave in a more or less cooperative and prosocial manner when playing against those who believe more strongly in witchcraft. We find that a stronger belief in witchcraft by player 2 is associated with less prosocial behavior as reflected by the actions chosen of player 1 in the games. If a player 2 believes more strongly in witchcraft, they are given less in the DG, they are less likely to be chosen in the CYD game, and they are more likely to have their payoff reduced and less likely to have their payoff increased in the JOD game.

We are also interested in whether this effect varies depending on the extent to which player 1 believes in witchcraft. We find that the antisocial effects of player 2's witchcraft beliefs are present even if player 1 believes in witchcraft and that they tend to also be very similar in magnitude and significance.

Although decisions in the games are made in private, there is still concern about experimenter demand effects. Motivated by this, we also consider a second set of outcomes, which measure the acceptability of actions taken in the game. Using the method developed by Krupka and Weber (2013), we measure how socially acceptable participants perceive possible actions in the games

when playing with a player with certain characteristics. Participants are asked to choose the most common response chosen by others and are given money if they are correct for all decisions asked about for a game. Thus, their responses are incentivized and they are not asked about their own view, but about the view of others about what is the socially acceptable behavior in the society.

Our findings for the perceived norms of behavior in the games align with the estimates based on actions taken in the games. If player 2 believes more strongly in witchcraft, then giving smaller amounts of money to player 2 in the DG is perceived as being more socially acceptable and giving larger amounts of money is viewed as not being socially acceptable. In the CYD, not choosing an individual who believes more strongly in witchcraft is viewed as being more socially acceptable, while choosing them is less socially acceptable. In the JOD game, decreasing the payoff of player 2 is viewed as being more socially acceptable if the player believes more strongly in witchcraft. Increasing the payoff of player 2 is less socially acceptable if they believe more strongly in witchcraft. Doing nothing is viewed as being equally acceptable regardless of player 2's beliefs.

Our findings provide causal evidence that complements existing observational studies that shed light into the likely effects of witchcraft, such as Gershman (2016) who documents a negative relationship between beliefs in witchcraft and trust within regions of Africa and globally. While these conditional correlations are important, they stop short of providing definitive evidence of adverse causal effects of witchcraft. For example, recent evidence shows that the slave trades appear to be associated with witchcraft beliefs today (Gershman, 2019). Thus, it is possible that the negative relationship between witchcraft and trust that one observes in the data is due to omitted variables bias. Both were affected by the slave trade, which reduced trust and increased the prevalence of beliefs in witchcraft. It also contributes to a more complete understanding of the causal effects of all religions. It complements existing evidence for the causal effects of monotheistic "Big God" religions (e.g., Norenzayan, 2013, Benjamin, Choi and Fisher, 2001, Bryan, Choi and Karlan, 2018).

The benefits of monotheistic religions like Christianity might be one explanation for its success in the continent in recent decades, which has witnessed the rapid and widespread adoption of Christianity and Islam. Despite this, traditional beliefs in ancestors, witchcraft, sorcery, fetishes, and amulets continue to be widespread. Our findings raise the question of why these beliefs persist and why people continue to use traditional magic by engaging in the use of rituals, spells,

amulets, and fetishes. We view this as an important avenue for future research.

The following section describes the setting in which the experiment is implemented. Section 3 describes the experimental design. This is followed by Section 4, which reports the estimating equations. Section 5 reports our findings and Section 6 concludes.

2. Background and Description of Traditional Supernatural Beliefs in Africa and the DRC

Figure 1 shows the average fraction of surveyed individuals who report believing in witchcraft when asked for subnational regions within sub-Saharan Africa. As shown, a proportion of the regions have shares that are in excess of 90%. The region in which the study's sample is located has 70–80% believing in witchcraft.

The Gallup survey asks a subsample of 18,000 respondents the main reason that one goes to see a witch doctor. The most common reasons listed are: to cure an illness or disease (22.9%), to place a spell on someone (19.3%), to become rich / find job (19.1%), to cure a spell placed on them by a witch (13.8%), to inflict pain on someone (12.2%), to find a husband/wife (2.2%), and to have children (2.0%).

The responses are quite consistent with our impression, from focus groups and interviews, of the role of witch doctors in Gemena. The most common reasons to use magic are to defend against the spells of others as well as to hurt others. It is also very common for individuals to use magic to make themselves healthier, wealthier, or more successful in life (e.g., finding a spouse or having many children).

3. Data and Experimental Design

The data were collected in a city in Sud-Ubangi province. We used Google satellite imagery from June 2015 to develop a sampling frame. We divided the city into enumeration areas – i.e., polygons – whose shape was determined by natural boundaries, such as roads and rivers. We estimated the population size within each polygon by counting the number of houses. See Figure A1 for a map showing the satellite imagery of the city and the polygons.

For the random sampling, 26 out of the 89 polygons were randomly selected to be visited by survey enumerators. We used a probability-proportional-to-size (PPS) sampling method so that

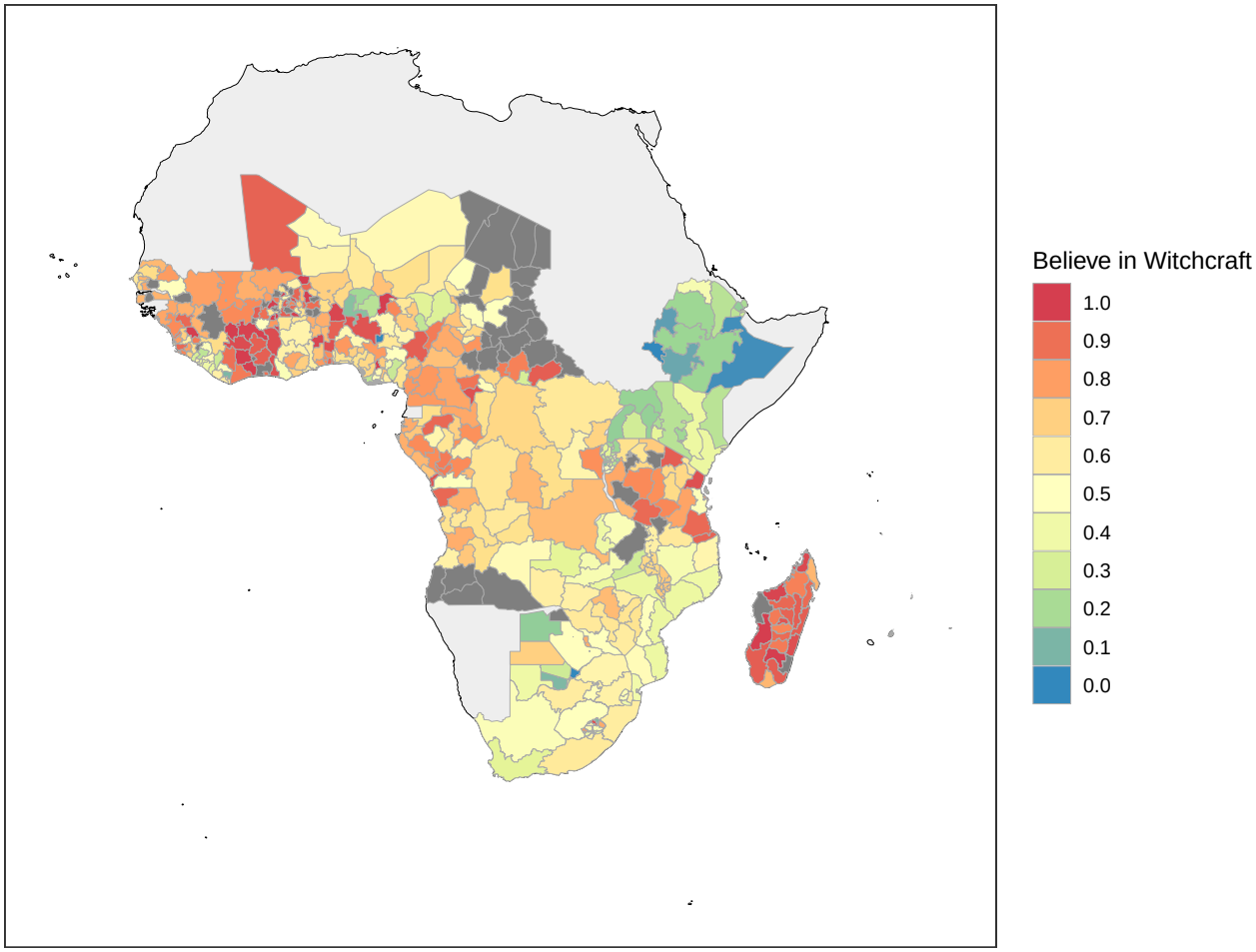


Figure 1: The share of individuals who report believing in either witchcraft or the evil eye. The data are from *Sub-Saharan Africa Religion Database* and Gallup (2009 and 2011, waves 4 and 6). Dark grey indicates missing data. Light grey indicates no data.

the probability of choosing a particular polygon was proportional to its estimated population size. Thus, more populated polygons had a higher probability of being selected. The target number of observations for the study was 520. Twenty households were visited in each polygon. To ensure geographic coverage within a polygon, enumerators followed a skip pattern that was determined by the estimated population and the target number of observations. Using this method, we obtained a final sample of 520 individuals.

For each household that was visited, enumerators asked to speak to the head of the household. If the head of the household was not available, the enumerator asked to interview an adult member of the household. If the individual agreed to participate, they first completed a short screening survey that collected basic demographic information. A sub-sample of those who complete the screening survey are asked to participate in the lab experiments. For logistical reasons related the matching of participants in the games, we only selected those who were from one of the three largest ethnic groups in the area (Ngbaka, Ngwandi, Ngombe) and had a strong or very strong belief in the Christian God to participate in the experiments.[2]

Respondents who complete the screening survey receive CF 500 and respondents who were invited to complete the lab experiments receive CF 1,000 (approximately 1 USD) for completing a slightly longer version of the survey.

3.1. Experimental Design

We ask individuals how strongly they believe in witchcraft. The survey question is "How strongly held are your beliefs in supernatural powers, such as witchcraft?". The response options are: very weak, weak, neither believe nor disbelieve, strong, and very strong. In pre-testing, individuals very rarely chose very weak or weak belief in witchcraft and so for the experiment, we aggregated the categories 'very weak' and 'weak'. Thus, in the end, each individual's belief in witchcraft falls into one of the following four categories: (1) very weak or weak, (2) neither believe nor disbelieve, (3) strong, and (4) very strong.

Individuals were not given the identities of the other player who they were playing with in the experimental tasks. However, they were given the following information about the other player: their age category, sex, educational attainment, ethnicity, strength of belief in the Christian God,

[2] We restrict to individuals who have a strong or very strong belief in the Christian God because there are very few individuals in the study city who do not report strong or very strong belief in the Christian God.

strength of belief in witchcraft, and whether they grew up in the study city. They were also told that the other player would have the same information about them.

One's age group is either young or old; their sex is either male or female; their education is has not completed primary school, has completed primary school, or has completed secondary school or higher; ethnicity is either same ethnicity as the other player or a different ethnicity; their strength of belief in a Christian God is either a strong belief in the Christian God or a very strong belief in the Christian God; their strength of belief in witchcraft is weak or very weak, neither believe nor disbelieve, strong, or very strong; and whether they grew up in the study city is either grew up in the city or not.

The primary experimental manipulation is the randomization of the belief in witchcraft of the other player in the experiment. Participants completed two iterations of each experimental activity. The assignment of the other player's characteristics was stratified so that in one of the two iterations (randomly chosen), the participant is paired with someone with either a 'strong' or 'very strong' belief in witchcraft and in the other, they are paired with someone with a 'weak or very weak' or 'neither believe or disbelieve' belief in witchcraft.

Each participant plays three different experimental games: the Dictator Game (DG), Choose Your Dictator Game (CYD), and Joy of Destruction Game (JOD). In each game, two rounds are played, each time with a different player. We now turn to a detailed description of each of the three games.

Dictator Game

The first activity is a variant of the standard DG. The participant is given CF 1,000 (in the form of ten CF 100 bills) to allocate between themselves and the other player. The participant is told that they will not know the exact identity of the other player, but that they will have several pieces of information about the other player. The pieces of information are described above. Likewise, the participant is told that the other player will have the same information about them. The participant then makes their allocation in private, dividing the ten CF 100 bills into two envelopes, one for themselves and one for the other player. An umbrella is used to shield their choice from the enumerator. The participant keeps their own envelope and puts the envelope for the other player in a bag located next to the participant that is eventually collected by the enumerator after the conclusion of all rounds of the games.

Choose Your Dictator Game

The second game is a version of a standard CYD game. The participant whose action is of interest is Player 2 in a DG. However, before the DG is played, the participant, who is Player 2, chooses who Player 1 will be. They are presented with two possible Player 1s, who we call Person A and Person B. The participant must choose one of the two individuals to be the Player 1. As in the DG above, the participant is given information on Person A and Person B – i.e., on the two potential people that can be chosen to be the Player 1. The participant also knows that Person A and Person B also have the same information about them when they make their allocation decision. The participant tells the enumerator which Person (A or B) that they choose to have as Player 1 in the DG.

Joy of Destruction Game

The final game is a one-sided joy-of-destruction game, which is also often called a money-burning game (Zizzo and Oswald, 2001). In this activity, the participant is told that they and another player have each been given CF 2,000. The other player is anonymous, but the participant is provided with the information described above. They are also told that the other player will have the same information about them. The participant is then given three choices. (1) They can pay CF 200 from their own endowment of CF 2,000 to reduce the endowment of the other player by CF 1,000. (2) They can pay CF 200 from their own endowment to increase the endowment of the other player by CF 1,000. (3) They can choose to neither increase or decrease the amount of the other player so that they both receive CF 2,000. Choosing to neither increase nor decrease the payoff of the other player comes at no cost. The participant makes their decision by marking an "X" next to their choice on a sheet of paper that provides an illustrated version of the options. The decision is made in private, using an umbrella as a shield. The marked sheet is put in an envelope, sealed, and placed in a bag collected by the enumerator.

4. Estimating Equations

We are interested in how the behavior of participants changes when paired with a player that has a strong belief in witchcraft relative to being paired with a player that has a weak belief in

witchcraft. Our baseline estimating equation has the following form:

$$\begin{aligned} y_{ij} &= \alpha_{a(i)} + \alpha_{a(j)} + \alpha_{g(i)} + \alpha_{g(j)} + \alpha_{e(i)} + \alpha_{e(j)} + \alpha_{v(i)} + \alpha_{v(j)} + \alpha_{b(i)} + \alpha_{b(j)} \\ &\quad + \alpha_{c(ij)} + \beta_1 \textit{Witchcraft}_i + \beta_2 \textit{Witchcraft}_j + \varepsilon_{ij}. \end{aligned} \tag{1}$$

The unit of observation is a participant i who plays against another player j. We estimate equation (1) separately for each action of a game. Thus, y_{ij} denotes the action in a game by individual i when playing against individual j. The equation includes fixed effects for participant i's age group $\alpha_{a(i)}$, gender $\alpha_{g(i)}$, education $\alpha_{e(i)}$, strength of belief in the christian god $\alpha_{b(i)}$, and whether the individual is from the study city $\alpha_{v(i)}$, as well as fixed effects for these same characteristics of player j: $\alpha_{a(j)}$, $\alpha_{g(j)}$, $\alpha_{e(j)}$ $\alpha_{b(j)}$, and $\alpha_{v(j)}$. In addition, we also control for a fixed effect that equals one if player i and player j belong to the same ethnicity, $\alpha_{c(ij)}$.

The variable $\textit{Witchcraft}_i$ is a measure of the strength of player i's reported belief in witchcraft. Similarly, $\textit{Witchcraft}_j$ is a measure of the strength of player j's belief in witchcraft. Our primary interest is in the sign of the coefficient β_2, which provides an estimate of whether the behavior of a player changes when the other player believes strongly in witchcraft. The secondary coefficient of interest is β_1. This tells us whether a player's behavior is affected by his or her own belief in witchcraft. Because we can randomize the characteristics of player j but not of player i, the interpretation of β_2 as the causal effect of witchcraft is more straightforward than for β_1.

Given the difficulty in interpretation of player i's characteristics on the outcomes of interest, we also estimate a second baseline equation that replaces player i characteristics with player i fixed effects. Thus, the estimates of interest are derived from differences of play within players when paired with other players. The equation is:

$$y_{ij} = \alpha_i + \alpha_{a(j)} + \alpha_{g(j)} + \alpha_{e(j)} + \alpha_{v(j)} + \alpha_{b(j)} + \alpha_{c(ij)} + \beta \textit{Witchcraft}_j + \varepsilon_{ij}. \tag{2}$$

where all definitions are as before and α_i denotes player i fixed effects. Because these fixed effects absorb $\textit{Witchcraft}_i$ this variable, as well as all other player i characteristics, does not appear in equation (2).

We use a number of different measures of $\textit{Witchcraft}_i$. First, we use an indicator variable that equals one for each category. In this way, we allow the data to confirm whether the assumptions behind the integer measure are valid. Second, we measure the strength of this belief on an integer scale that ranges from one to four and is increasing in the strength of one's belief in witchcraft.

Third, we collapse the data into the two categories for which randomization occurs: (1) "weak", which is defined as those who report 'very weak or weak' or 'neither believe nor disbelieve' and (2) "strong", which is defined as those who report a 'strong' or 'very strong' belief in witchcraft. We then create an indicator variable that equals one if the participant has a strong or very strong belief.

The full experiment, including the games played, the measurement, the regression equations, and the specifications estimated, was pre-registered with registration number AEARCTR-0003276 and AEARCTR-0004878 (Lowes and Nunn, 2018, 2019).

5. Empirical Results

5.1. Game Results

We now turn to our estimates of equation (1). The estimates for the DG are reported in Table 1. In all specifications, the dependent variable is the amount given to player 2 by player 1 out of a total of CF 1,000. The odd numbered columns report specifications without player i (i.e., player 1) fixed effects and the even numbered columns report specification with the fixed effects. Columns 1 and 2 report estimates where beliefs are measured on an integer scale that ranges from 1 to 4. We find that a one-unit increase in player 2's belief in witchcraft is associated with a decline in the amount received of about CF 12. Columns 3 and 4 report estimates where witchcraft beliefs are measured flexibly using an indicator variable for each belief category, with weak belief in witchcraft as the omitted category. We find that the amount given to player j (i.e., player 2) is CF 27 lower if they believe strongly or very strongly in witchcraft. Thus, a change from 1 to 4 is associated with a CF 36 decrease in the amount received by player 2. Columns 5 and 6 report estimates where beliefs are measured using an indicator variable that equals one if the participant believes strongly or very strongly in witchcraft. The estimates show that such beliefs by player 2 are associated with a CF 30 decrease in the amount they receive.

The table also reports the estimated coefficient for the beliefs of player 1 – i.e., β_1 in equation (1). As we have noted, the interpretation of this coefficient is less clear since we are unable to randomize the characteristics of player 1 as we are of player 2. With this caveat in mind, we find some weak evidence that a stronger belief in witchcraft by player 1 is associated with less giving by him/her in the dictator game. Although the estimated effect of this belief is always negative, it

Table 1: Dictator Game (DG) Estimates

	OLS Dep. Var: Amount Sent to Other Player					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-11.364	-12.198				
	[4.932]**	[3.903]***				
	(3.941)***	(5.522)**				
Indicator: Neither Weak Nor Strong Belief in WC			6.228	8.523		
			[15.666]	[16.827]		
			(15.562)	(23.808)		
Indicator: Strong Belief in WC			-27.452	-27.828		
			[16.027]*	[15.722]*		
			(14.398)*	(22.244)		
Indicator: Very Strong Belief in WC			-26.373	-22.339		
			[15.570]*	[13.582]		
			(13.558)*	(19.216)		
Indicator: Strong or Very Strong Belief in WC					-29.882	-29.265
					[11.257]***	[8.406]***
					(8.525)***	(11.894)**
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-8.230					
	[5.142]					
	(6.257)					
Indicator: Neither Weak Nor Strong Belief in WC			-23.028			
			[21.984]			
			(27.598)			
Indicator: Strong Belief in WC			-16.788			
			[18.245]			
			(22.454)			
Indicator: Very Strong Belief in WC			-28.714			
			[16.577]*			
			(20.458)			
Indicator: Strong or Very Strong Belief in WC					-15.162	
					[12.711]	
					(15.661)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	1040	1040	1040	1040	1040	1040
Clusters	520	520	520	520	520	520
Mean Dep. Var	468.9	468.9	468.9	468.9	468.9	468.9

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Columns 2, 4, and 6 include Player 1 fixed effects. *Amount Sent to Other Player* is the amount Player 1 sends to Player 2 in an anonymous dictator game. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft.
* p < 0.1; ** p < 0.05; *** p < 0.01

is never statistically significant and always much smaller in magnitude than the analogous effect for player 2.

The estimates for the CYD are reported in Table 2. In this game, we call the player who is choosing which of two players to play with player 1 (i.e., player i) and the players who might be chosen player 2 (i.e., player j). After a player 2 is chosen, then they choose the amount of 1000 CF to allocate to player 1. The dependent variable is an indicator variable that equals one if player 2 is chosen by player 1. We find very strong evidence that player 2's beliefs in witchcraft negatively affect the probability that he/she is chosen in the CYD. When beliefs are measured using a 1–4 integer scale, we find that a one-point increase in witchcraft beliefs is associated with a decrease in the probability of being chosen by 15 percentage points (columns 1 and 2). According to the estimates reported in columns 3 and 4, a player is 40 percentage points less likely to be chosen if they have a strong belief in witchcraft and 25 percentage points less likely to be chosen if they have a very strong belief. Thus, a full 3 point increase is associated with a decrease of about 45 percentage points. Lastly, if one believes strongly or very strongly in witchcraft, the probability of being chosen is reduced by 39 percentage points. Not only are the estimated effects highly significant, but they are also extremely large in magnitude. Each of the estimated estimates reported above should be compared to the mean probability of being picked which, by design, is 50%.

These effects are significant. To the extent that behavior in the game reflects behavior in real life, the findings suggest that individuals are extremely hesitant to engage in a relationship with those who believe in witchcraft.

We next turn to our JOD estimates, which are reported in Table 3. In these regressions, the dependent variable is a measure that is increasing in the extent to which player 1 makes a prosocial decision. The variable takes on the value of -1 if player 1 chooses to pay to reduce the payoff of player 2; it takes on the value of 0 if player 1 chooses to do nothing, and it takes on the value 1 if player 1 chooses to pay to increase the payoff of player 2. We find that consistent with the estimates from the DG and CYD games, that player 1 behaves less pro-socially when randomly paired against a player 2 that believes in witchcraft. Each of our measures of a stronger belief in witchcraft is negatively associated with prosocial behavior in the JOD. The estimates are not as large or robust as the DG or the CYD game, but they are consistently negative and generally significant. The results are driven by being less willing to increase the endowment of

Table 2: Choose Your Dictator (CYD) Game Estimates

	OLS Dep. Var: Chose Player as Dictator					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.142	-0.149				
	[0.009]***	[0.011]***				
	(0.013)***	(0.016)***				
Indicator: Neither Weak Nor Strong Belief in WC			-0.013	-0.017		
			[0.029]	[0.038]		
			(0.028)	(0.043)		
Indicator: Strong Belief in WC			-0.403	-0.416		
			[0.029]***	[0.036]***		
			(0.037)***	(0.048)***		
Indicator: Very Strong Belief in WC			-0.345	-0.338		
			[0.029]***	[0.036]***		
			(0.037)***	(0.048)***		
Indicator: Strong or Very Strong Belief in WC					-0.367	-0.366
					[0.020]***	[0.024]***
					(0.032)***	(0.036)***
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.001					
	[0.009]					
	(0.002)					
Indicator: Neither Weak Nor Strong Belief in WC			0.004			
			[0.041]			
			(0.005)			
Indicator: Strong Belief in WC			-0.002			
			[0.032]			
			(0.004)			
Indicator: Very Strong Belief in WC			0.001			
			[0.028]			
			(0.004)			
Indicator: Strong or Very Strong Belief in WC					-0.000	
					[0.023]	
					(0.002)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	2080	2080	2080	2080	2080	2080
Clusters	520	520	520	520	520	520
Mean Dep. Var	0.500	0.500	0.500	0.500	0.500	0.500

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are four observations per respondent, one corresponding to each person that they could choose between for the two rounds of the CYD. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Chose Player as Dictator* is an indicator variable equal to 1 if this player was selected. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * p < 0.1; ** p < 0.05; *** p < 0.01

the other player if they have a strong belief in witchcraft. Players are only marginally more likely to reduce the endowment of the other player if the other player has a strong belief in witchcraft.

5.2. Norm Measurement Results

We now turn to our second set of outcomes which measure participants' perceptions of the social acceptability of different actions in different games. As mentioned, this is motivated by two facts. First, there is now ample evidence that norms underlie actions in behavioral experiments, not to mention behavior in everyday life. Second, we expect these measures to be less prone to experimenter demand effects. Individuals do not report about their beliefs, but about their expectation of what others will report about the social acceptability of different actions. Second, their responses are incentivized. If their answers are accurate individuals receive sizeable payments.

The measures were collected during an additional round that occurred approximately one year after the first round of visits. We were able to reinterview 449 of the original 520 respondents.

The strategy that we employ to measure norms follows the method developed by Krupka and Weber (2013). Individuals were reminded of the three experimental tasks that they had participated in and we reviewed how they are played. Participants were then asked to imagine that there is a hypothetical decision maker who is completing the experimental task. This is a hypothetical player 1 in the experiments. The participant is given information on the identity of the person that the decision maker in the task has been paired with. This is player 2. For each possible choice that the decision maker in the task could make, the participant is asked: "Is this choice very socially inappropriate, somewhat socially inappropriate, somewhat socially appropriate, very socially appropriate?." Earlier in the protocol participants are given the following explanation about the meaning of socially appropriate:

> "After I describe the situation and decision made by the person, I would like you to evaluate the decision and decide whether the action is 'socially appropriate' and 'consistent with moral or proper social behavior' or 'socially inappropriate' and 'inconsistent with moral or proper social behavior'. By socially appropriate, I mean behavior that most people in the study city agree is the 'correct' or 'ethical' thing to do."

Table 3: Joy of Destruction (JOD) Game Estimates

	OLS: Dep. Var: Choice in JOD					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.040	-0.039				
	[0.020]**	[0.019]**				
	(0.018)**	(0.027)				
Indicator: Neither Weak Nor Strong Belief in WC			-0.026	0.051		
			[0.060]	[0.079]		
			(0.060)	(0.111)		
Indicator: Strong Belief in WC			-0.148	-0.131		
			[0.059]**	[0.069]*		
			(0.057)**	(0.097)		
Indicator: Very Strong Belief in WC			-0.088	-0.024		
			[0.063]	[0.069]		
			(0.060)	(0.098)		
Indicator: Strong or Very Strong Belief in WC					-0.107	-0.107
					[0.043]**	[0.040]***
					(0.040)***	(0.057)*
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.017					
	[0.019]					
	(0.020)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.017			
			[0.080]			
			(0.085)			
Indicator: Strong Belief in WC			0.021			
			[0.071]			
			(0.076)			
Indicator: Very Strong Belief in WC			0.045			
			[0.063]			
			(0.066)			
Indicator: Strong or Very Strong Belief in WC					0.042	
					[0.048]	
					(0.051)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	1022	1022	1022	1022	1022	1022
Clusters	513	513	513	513	513	513
Mean Dep. Var	0.164	0.164	0.164	0.164	0.164	0.164

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Choice in JOD* takes the value of -1 if Player 1 chose to decrease the endowment of Player 2, 0 if Player 1 chose to do nothing, and 1 if Player 1 chose to increase the endowment of Player 2. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. *p<0.1; ** p < 0.05; *** p < 0.01

To elicit norms, we do not ask participants to choose the answer that they think is correct. Instead, we ask them to choose the most common response to the question of what will be the most common response of the others. That is, all individuals are trying to choose what will be the most common choice of others trying to make the same decision. To encourage individuals to consider their answers carefully, the responses are incentivized. If all of a respondent's responses about the appropriateness of each choice is the most common response among all participants, then the respondent received CF 5,000. If they get one or more answers incorrect, they receive no payment.

As in the experiments, individuals are not given the exact identity of the player that player 1 is paired with; they are given the same information as in the original experiments. As before, the primary experimental manipulation is the reported belief in witchcraft of the other player. Participants complete two iterations of the set of questions about each experimental activity. Each participant responded to questions regarding the socially appropriate action in the dictator game (DG), choose-your-dictator game (CYD), and the joy-of-destruction game (JOD). For the dictator game, there are 11 possible allocation choices (corresponding to each possible amount from 0 CF and 1000 CF that can be allocated to the other player), in the CYD game two possible choices (choose Player A or choose Player B), and in the JOD game there are three possible choices (decrease the endowment of the other player, do nothing, increase the endowment of the other player).

We code participant responses of how socially appropriate actions are using a 1–4 integer scale where 1 corresponds to 'very socially inappropriate' and 4 to 'very socially appropriate'. We then re-estimate equation (1) with this as the outcome of interest. The regressions are estimated separately for each potential action that could be chosen in each game. In this way, we are able to estimate how the social appropriateness of an action depends on whether the other player believes strongly in witchcraft or not.

We first consider the dictator game. The coefficients of interest are summarized in Figure 2 and the full estimates are reported in appendix Tables A17 to A27. First consider Figure 2a, which reports the estimated coefficient (and 95% confidence intervals) for the 1-4 integer measure of player 2's belief in witchcraft. This is β_2 in equation (1). A clear pattern emerges from the estimates. For amounts allocated to player 2 that are CF 500 (50%) or above, the more player 2 believes in witchcraft the less socially appropriate it is to allocate this amount to them. By

contrast, for an amount below CF 500 (50%), the more player 2 believes in witchcraft the more socially appropriate it is to allocate this amount to them. More generally, there is a nearly perfect monotonic ordering of the estimate for each allocation.[3] It is perceived that allocating smaller amounts to someone who believes in witchcraft more strongly is more socially acceptable than to someone who believes less strongly in witchcraft.

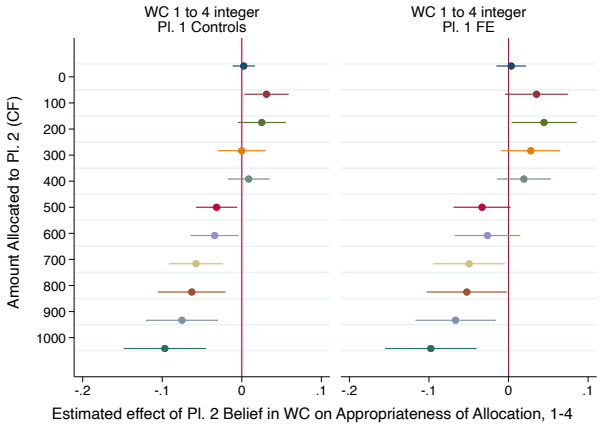
Figure 2b reports the same estimates, but for the case where we create indicators for each potential belief in witchcraft. We see the exact analogous pattern here. If someone believes very strongly or strongly in witchcraft then it is less socially acceptable to give them higher allocations and more socially acceptable to give them lower allocations (relative to someone who believes more weakly in witchcraft). For completeness, Figure 2c reports estimates for an indicator variable that equals one if player 2 believes either strongly or very strongly in witchcraft.

Estimates for the choose-your-dictator game are reported in Table 4. We see an analogous pattern here. Choosing a person to be player 1 in the dictator game is seen as being less socially appropriate if that person believes more strongly in witchcraft. This finding is robust to quantifying stronger beliefs in witchcraft using each of our three measures. The table also reports estimated coefficients for player 1's beliefs in witchcraft i.e., β_1 in equation (1). Consistent with all of our previous findings, the beliefs of player 1 are uncorrelated with the outcomes of interest. However, as we report in appendix Table A28, we observe marginally significant positive interactions between player 1 and player 2's beliefs in witchcraft; these results are not robust to clustering standard errors at the individual level.

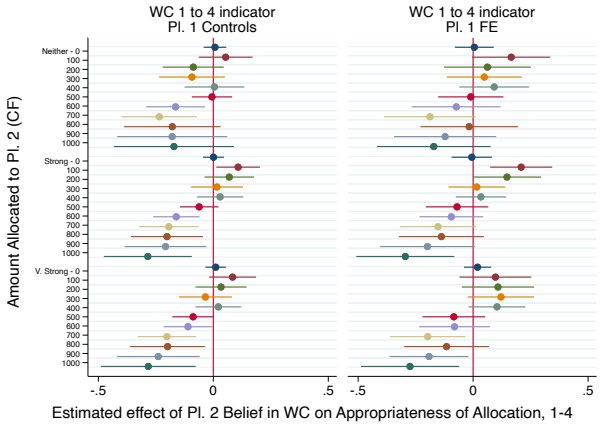
Estimates of the joy-of-destruction game are summarized in Figure 3. The full estimates are reported in appendix Tables A29 to A31. For each game, there are three potential choices: decrease the other player's payoff, do nothing and increase the other player's payoff. The findings for this game echo the findings from the previous two games. Participants feel that it is more socially appropriate to decrease the payoff of the other player when the other player believes more strongly in witchcraft. Similarly, they feel that it is less socially appropriate to increase the payoff of the other player when the other player believes more strongly in witchcraft. Lastly, it is equally appropriate to do nothing.

[3] The one exception is for an allocation of zero to the other player. In this case the overwhelming belief is that it is not acceptable to give nothing to the other player whether or not they believe in witchcraft – 98% of respondents say it is very socially inappropriate to send zero to the other player. Thus, the estimated coefficient is zero.

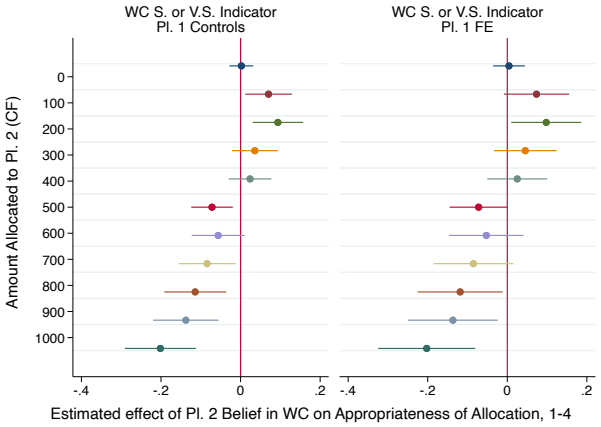
Figure 2: Effect of Player 2's Belief in Witchcraft on How Socially Appropriate Choices are in the DG



(a) WC as a 1 to 4 integer



(b) WC indicators: Neither Strong nor Weak Belief, Strong Belief, Very Strong Belief



(c) WC Strong Belief or V. Strong Belief Indicator

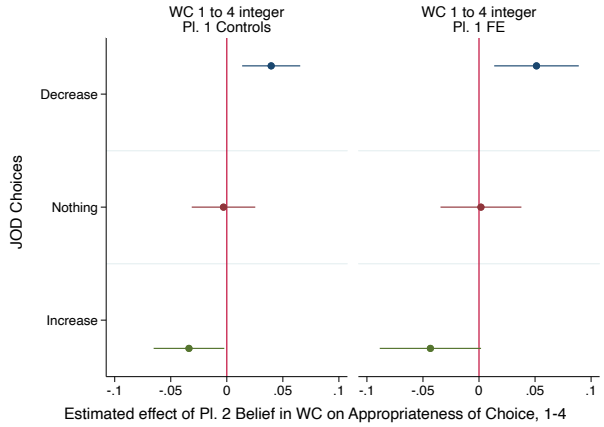
Notes: The eleven choices in the DG correspond to the amounts between 0 and 1000 CF that can be sent to the other player. *Appropriate* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither strong nor weak belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft.

Table 4: How Appropriate to Choose Player in Choose Your Dictator (CYD)

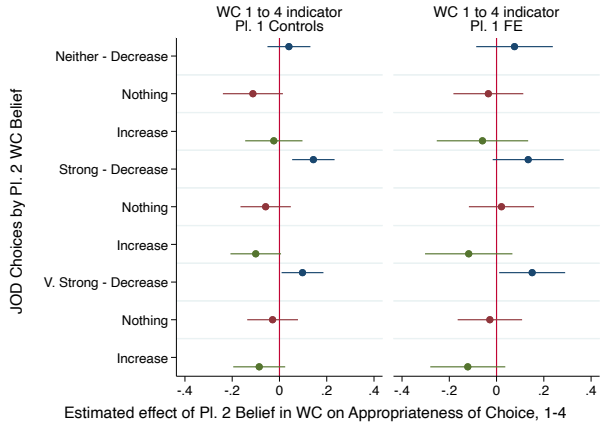
	OLS Dep. Var: Appropriate to Chose Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.272	-0.286				
	[0.019]***	[0.020]***				
	(0.025)***	(0.029)***				
Indicator: Neither Weak Nor Strong Belief in WC			0.185	0.232		
			[0.057]***	[0.072]***		
			(0.056)***	(0.082)***		
Indicator: Strong Belief in WC			-0.572	-0.539		
			[0.063]***	[0.067]***		
			(0.074)***	(0.089)***		
Indicator: Very Strong Belief in WC			-0.672	-0.659		
			[0.061]***	[0.065]***		
			(0.073)***	(0.087)***		
Indicator: Strong or Very Strong Belief in WC					-0.712	-0.712
					[0.043]***	[0.044]***
					(0.058)***	(0.067)***
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.003					
	[0.021]					
	(0.020)					
Indicator: Neither Weak Nor Strong Belief in WC			0.070			
			[0.086]			
			(0.076)			
Indicator: Strong Belief in WC			0.058			
			[0.067]			
			(0.065)			
Indicator: Very Strong Belief in WC			0.017			
			[0.063]			
			(0.062)			
Indicator: Strong or Very Strong Belief in WC					-0.003	
					[0.050]	
					(0.046)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	1796	1796	1796	1796	1796	1796
Clusters	449	449	449	449	449	449
Mean Dep. Var	3.076	3.076	3.076	3.076	3.076	3.076

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are four observations per respondent, one corresponding to each person that they could choose between for the two rounds of the CYD. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Choose Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

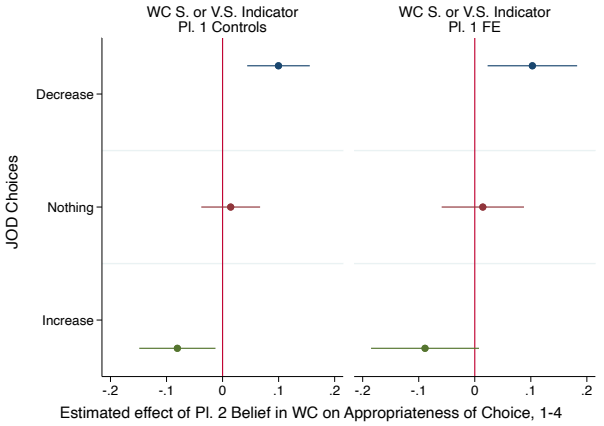
Figure 3: Effect of Pl. 2 Belief in Witchcraft on How Appropriate Choices are in JOD



(a) WC as a 1 to 4 integer



(b) WC indicators: Neither Strong nor Weak Belief, Strong Belief, Very Strong Belief



(c) WC Strong Belief or V. Strong Belief Indicator

Notes: The three choices in the JOD are to decrease, do nothing, or increase the endowment of the other player. *Appropriate* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither strong nor weak belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft.

6. Discussion and Conclusion

In this study, we provided a test of the effect of one's beliefs in witchcraft on prosocial behavior directed towards the individual. We designed and implemented lab-in-the field experiments in the Northern DRC. The experiments were designed to randomly vary the perceived threat of witchcraft use in experimental games involving two players. We randomly matched players and provided limited information about the other player in the game. Individuals were not given the exact identity of the other player but were given the following information: their age group, sex, education level, ethnicity, strength of belief in the Christian God, strength of belief in witchcraft, and whether they grew up in the study city. We played three different games: the Dictator Game (DG), Choose Your Dictator Game (CYD), and Joy of Destruction Game (JOD).

We found strong evidence that a belief in witchcraft is associated with behavior that was less cooperative, less altruistic, and less prosocial. Across the three games, individuals consistently chose actions that were less beneficial for the other player when the other player believed more strongly in witchcraft. Players gave less in the dictator game, they were less likely to choose to partner against the player in the CYD game, and they were more likely to reduce the other player's payoff and less likely to increase their payoff in the JOD game. Thus, the estimates provide evidence of Small God religions being associated with less cooperation and less prosocial behavior. These causal estimates suggest that the estimates of adverse social effects of witchcraft from correlations using observational data may, in fact, be causal.

In the experiment we were able to vary the belief in witchcraft of the other player (i.e., player 2). Because we could not do the same for the decision maker (i.e., player 1), we are unable to obtain causal estimates of the effect of one's belief in witchcraft on how prosocial one acts towards others. Although we are not able to estimate causal effects, we are able to estimate conditional correlations that control for important observable characteristics. Across all games and all specifications, we consistently find that one's (i.e. player 1's) belief in witchcraft does not affect how prosocial they act towards the other player. In addition, we also find that player 1's beliefs do not affect the extent to which they treat those that believe in witchcraft worse.

Our findings help to understand many social phenomena in Africa. First, they explain why there is an asymmetry in how secretive traditional 'Small God' religions are compared to 'Big God' religions like Christianity and Islam. Given our findings, it is not surprising that, despite

traditional practices still being extremely common, they are almost always done in secret and people are hesitant to admit to having traditional beliefs or their own practices. The estimates also explain why individuals commonly accuse others of using witchcraft. Our findings suggest that if the other person believes in witchcraft then it is more socially acceptable to not give to them (e.g., giving in the DG), to not associate or cooperate with them (e.g., choosing them in the CYD), to not help them (increasing their payoff in the JOD game), or to sabotage them (decreasing their payoff in the JOD game). In short, accusing others of believing in witchcraft may be a convenient excuse that allows one to act less prosocially or even antisocially towards others.

Despite increasing our understanding of all religious beliefs in the DRC, our findings also raise as many questions as they help to answer. For example, our findings raise the question of why Small God beliefs persist and why people continue to use traditional magic by engaging in the use of rituals, spells, amulets, and fetishes given their adverse consequences. One view of their persistence in the face of the rapid adoption of Christianity on the continent is that there are benefits, either at the group or individual level, to holding 'Small God' beliefs. Our findings provide no evidence of benefits. It is possible that there are benefits, such as reduced anxiety or depression, from such practices that our experiments do not pick up. It is also possible that these beliefs have few benefits but they persist because of the stickiness of culture and religion. However, this raises the deeper question of whey these beliefs ever existed. We view these and related questions as extremely important avenues for future research.

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Web Appendix for

Traditional Supernatural Beliefs and Prosocial Behavior

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1 March 2021

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Appendix A. Additional Tables and Figures

Table A1: Correlates of Belief in Witchcraft

	Panel A: Correlates of Belief in Witchcraft					
	(1)	(2)	(3)	(4)	(5)	(6)
Male	-0.147	-0.087	-0.152	-0.154	-0.141	-0.072
	(0.098)	(0.102)	(0.099)	(0.097)	(0.099)	(0.105)
Completed Primary		0.045				-0.007
		(0.130)				(0.132)
Completed Secondary		-0.275*				-0.352**
		(0.150)				(0.154)
Grew Up in Gemena			0.045			0.015
			(0.112)			(0.114)
Very Strong Belief in Christian God				0.354***		0.372***
				(0.123)		(0.122)
Ngombe					0.056	0.153
					(0.165)	(0.168)
Ngbandi					0.112	0.150
					(0.150)	(0.146)
Observations	520	520	520	520	520	520
Mean	3.033	3.033	3.033	3.033	3.033	3.033
	Panel B: Correlates of Affected by Witchcraft in Past					
Male	-0.072	-0.044	-0.081*	-0.072	-0.072	-0.047
	(0.047)	(0.049)	(0.048)	(0.047)	(0.048)	(0.050)
Completed Primary		-0.045				-0.056
		(0.063)				(0.064)
Completed Secondary		-0.143**				-0.152**
		(0.069)				(0.071)
Grew Up in Gemena			0.069			0.059
			(0.053)			(0.054)
Very Strong Belief in Christian God				0.048		0.055
				(0.054)		(0.054)
Ngombe					-0.006	0.036
					(0.070)	(0.072)
Ngbandi					0.024	0.049
					(0.069)	(0.068)
Observations	485	485	485	485	485	485
Mean	0.528	0.528	0.528	0.528	0.528	0.528

Notes: Robust standard errors in parentheses. All columns include controls for age and age squared. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither strong nor weak belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. *Affected by Witchcraft* is an indicator variable equal to one if the respondent has been affected by witchcraft in the past. *Completed Primary* is an indicator variable equal to one if the respondent completed primary but did not complete secondary school. *Completed Secondary* is an indicator variable equal to one if the respondent completed secondary school. The excluded category is did not complete primary. *Very Strong Belief in Christian God* is an indicator variable equal to one if the respondent reports a very strong belief in the Christian God. The omitted category is a somewhat strong belief in the Christian God. Ngombe and Ngbandi are fixed effects for two of the three ethnic groups. The omitted category is Ngbaka. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A2: Correlates of Belief in Witchcraft

	Panel A: Correlates of Worried About Being Affected by Witchcraft in Future					
Male	0.014	0.044	0.006	0.014	0.011	0.037
	(0.040)	(0.042)	(0.041)	(0.040)	(0.040)	(0.043)
Completed Primary		-0.093				-0.094
		(0.059)				(0.060)
Completed Secondary		-0.165***				-0.161**
		(0.062)				(0.065)
Grew Up in Gemena			0.062			0.050
			(0.043)			(0.044)
Intensity of Belief in Christian God				0.004		0.013
				(0.047)		(0.046)
Ngombe					-0.039	-0.000
					(0.059)	(0.060)
Ngbandi					-0.011	0.014
					(0.060)	(0.060)
Observations	519	519	519	519	519	519
Mean	0.264	0.264	0.264	0.264	0.264	0.264
	Panel B: Correlates of Trust People in Gemena Who Believe in Witchcraft					
Male	0.123**	0.141**	0.133**	0.127**	0.124**	0.155***
	(0.054)	(0.055)	(0.054)	(0.054)	(0.054)	(0.055)
Completed Primary		-0.091				-0.074
		(0.072)				(0.069)
Completed Secondary		-0.100				-0.091
		(0.079)				(0.078)
Grew Up in Gemena			-0.069			-0.075
			(0.064)			(0.067)
Very Strong Belief in Christian God				-0.182**		-0.175**
				(0.071)		(0.070)
Ngombe					0.011	0.019
					(0.088)	(0.092)
Ngbandi					-0.044	-0.052
					(0.075)	(0.078)
Observations	493	493	493	493	493	493
Mean	1.254	1.254	1.254	1.254	1.254	1.254

Notes: Robust standard errors in parentheses. All columns include controls for age and age squared. *Worried about Being Affected by Witchcraft in the future* is an indicator variable equal to one if the respondent is worried about being affected by witchcraft in the future. *Trust People that Believe in Witchcraft in Gemena* ranges from (1) not at all to (4) completely. *Completed Primary* is an indicator variable equal to one if the respondent completed primary but did not complete secondary school. *Completed Secondary* is an indicator variable equal to one if the respondent completed secondary school. The excluded category is did not complete primary. *Very Strong Belief in Christian God* is an indicator variable equal to one if the respondent reports a very strong belief in the Christian God. The omitted category is a somewhat strong belief in the Christian God. Ngombe and Ngbandi are fixed effects for two of the three ethnic groups. The omitted category is Ngbaka. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A3: Game Play All Correlates

	Dep. Vars: Game Play in DG, CYD, JOD					
	DG Allocation (*OLS*)	*CYD Chose* (*Logit*)	*JOD Choice*	*JOD Decrease* (*OLS*)	*JOD Nothing* (*OLS*)	*JOD Increase* (*OLS*)
	(1)	(2)	(3)	(4)	(5)	(6)
Player 1 Characteristics:						
Strength of Belief in WC Scale, 1-4	-8.230	-0.001	0.017	-0.010	0.003	0.007
	(6.257)	(0.002)	(0.020)	(0.011)	(0.015)	(0.014)
Male	-10.133	-0.002	0.030	0.033	-0.096***	0.063*
	(14.494)	(0.004)	(0.048)	(0.024)	(0.035)	(0.035)
Old	9.412	-0.000	-0.011	0.005	0.002	-0.007
	(14.087)	(0.004)	(0.047)	(0.024)	(0.035)	(0.034)
Completed Primary	-3.596	0.006	0.035	-0.061*	0.087*	-0.026
	(18.454)	(0.005)	(0.070)	(0.037)	(0.048)	(0.048)
Completed Secondary	-0.984	0.002	-0.075	-0.058	0.191***	-0.133***
	(20.984)	(0.006)	(0.074)	(0.041)	(0.050)	(0.049)
Grew up in Gemena	2.596	0.006	-0.026	-0.041	0.107***	-0.067*
	(16.008)	(0.005)	(0.054)	(0.027)	(0.037)	(0.037)
Very Strong Belief in Christian God	12.994	-0.002	0.002	-0.009	0.017	-0.007
	(16.331)	(0.005)	(0.056)	(0.030)	(0.041)	(0.039)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-11.364***	-0.151***	-0.040**	0.015	0.010	-0.025*
	(3.941)	(0.016)	(0.018)	(0.010)	(0.013)	(0.013)
Same Tribe	-9.945	-0.029	-0.008	0.015	-0.022	0.007
	(11.773)	(0.025)	(0.043)	(0.023)	(0.031)	(0.029)
Male	3.432	-0.039*	-0.015	0.007	0.001	-0.008
	(11.453)	(0.023)	(0.042)	(0.022)	(0.031)	(0.030)
Old	28.335**	0.028	0.016	0.014	-0.043	0.030
	(11.468)	(0.024)	(0.042)	(0.023)	(0.032)	(0.029)
Completed Primary	-12.674	0.062**	0.026	-0.010	-0.007	0.016
	(13.891)	(0.028)	(0.052)	(0.028)	(0.039)	(0.037)
Completed Secondary	-12.464	0.064**	0.005	-0.010	0.016	-0.005
	(13.818)	(0.028)	(0.052)	(0.028)	(0.038)	(0.036)
Grew up in Gemena	8.050	0.022	-0.011	0.011	-0.011	-0.000
	(10.455)	(0.024)	(0.043)	(0.024)	(0.033)	(0.030)
Very Strong Belief in Christian God	4.472	0.002	-0.009	-0.003	0.016	-0.012
	(10.592)	(0.023)	(0.040)	(0.022)	(0.030)	(0.028)
Observations	1,040	2,080	1,022	1,022	1,022	1,022
Clusters	520	520	513	513	513	513
Mean	468.9	0.500	0.164	0.159	0.519	0.323

Notes: Standard errors clustered at the individual level in (). *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither strong nor weak belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A4: Choose Your Dictator (CYD) Game Estimates

	Logit - Marginal Effects at Means: *OLS Dep. Var: Chose Player as Dictator*					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.151	-0.159				
	[0.011]***	[0.011]***				
	(0.016)***	(0.017)***				
Indicator: Neither Weak Nor Strong Belief in WC			-0.013	-0.018		
			[0.029]	[0.033]		
			(0.028)	(0.037)		
Indicator: Strong Belief in WC			-0.406	-0.419		
			[0.029]***	[0.031]***		
			(0.037)***	(0.042)***		
Indicator: Very Strong Belief in WC			-0.347	-0.340		
			[0.029]***	[0.031]***		
			(0.037)***	(0.041)***		
Indicator: Strong or Very Strong Belief in WC					-0.387	-0.388
					[0.024]***	[0.024]***
					(0.037)***	(0.037)***
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.001					
	[0.010]					
	(0.002)					
Indicator: Neither Weak Nor Strong Belief in WC			0.004			
			[0.048]			
			(0.005)			
Indicator: Strong Belief in WC			-0.003			
			[0.037]			
			(0.005)			
Indicator: Very Strong Belief in WC			0.001			
			[0.033]			
			(0.004)			
Indicator: Strong or Very Strong Belief in WC					-0.000	
					[0.027]	
					(0.003)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	2080	2080	2080	2080	2080	2080
Clusters	520	520	520	520	520	520
Mean Dep. Var	0.500	0.500	0.500	0.500	0.500	0.500

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are four observations per respondent, one corresponding to each person that they could choose between for the two rounds of the CYD. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Chose Player as Dictator* is an indicator variable equal to 1 if this player was selected. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * p < 0.1; ** p < 0.05; *** p < 0.01

Table A5: JOD Chose to Increase

	OLS: Dep. Var: Chose to Increase in JOD					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.025	-0.022				
	[0.014]*	[0.013]*				
	(0.013)*	(0.018)				
Indicator: Neither Weak Nor Strong Belief in WC			-0.014	0.055		
			[0.043]	[0.052]		
			(0.043)	(0.074)		
Indicator: Strong Belief in WC			-0.099	-0.068		
			[0.040]**	[0.046]		
			(0.039)**	(0.064)		
Indicator: Very Strong Belief in WC			-0.053	0.001		
			[0.043]	[0.047]		
			(0.041)	(0.067)		
Indicator: Strong or Very Strong Belief in WC					-0.070	-0.064
					[0.029]**	[0.027]**
					(0.027)***	(0.038)*
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.007					
	[0.013]					
	(0.014)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.076			
			[0.055]			
			(0.060)			
Indicator: Strong Belief in WC			0.035			
			[0.047]			
			(0.050)			
Indicator: Very Strong Belief in WC			0.004			
			[0.043]			
			(0.046)			
Indicator: Strong or Very Strong Belief in WC					0.044	
					[0.033]	
					(0.036)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	1022	1022	1022	1022	1022	1022
Clusters	513	513	513	513	513	513
Mean Dep. Var	0.323	0.323	0.323	0.323	0.323	0.323

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Chose to Increase in JOD* takes the value 1 if Player 1 chose to increase the endowment of Player 2. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where th eomitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. *p<0.1; ** p < 0.05; *** p < 0.01

Table A6: JOD Chose to Decrease

	OLS: Dep. Var: Chose to Decrease in JOD					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	0.015	0.017				
	[0.010]	[0.011]				
	(0.010)	(0.015)				
Indicator: Neither Weak Nor Strong Belief in WC			0.012	0.005		
			[0.031]	[0.045]		
			(0.031)	(0.063)		
Indicator: Strong Belief in WC			0.049	0.062		
			[0.032]	[0.040]		
			(0.032)	(0.056)		
Indicator: Very Strong Belief in WC			0.036	0.025		
			[0.033]	[0.038]		
			(0.032)	(0.054)		
Indicator: Strong or Very Strong Belief in WC					0.037	0.043
					[0.023]	[0.023]*
					(0.022)	(0.032)
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.010					
	[0.011]					
	(0.011)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.059			
			[0.045]			
			(0.045)			
Indicator: Strong Belief in WC			0.013			
			[0.040]			
			(0.043)			
Indicator: Very Strong Belief in WC			-0.041			
			[0.035]			
			(0.036)			
Indicator: Strong or Very Strong Belief in WC					0.002	
					[0.026]	
					(0.027)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	1022	1022	1022	1022	1022	1022
Clusters	513	513	513	513	513	513
Mean Dep. Var	0.159	0.159	0.159	0.159	0.159	0.159

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Chose to Decrease in JOD* takes the value 1 if Player 1 chose to decrease the endowment of Player 2. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where th eomitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. *p<0.1; ** p < 0.05; *** p < 0.01

Table A7: DG Estimates with Interactions

	OLS Dep. Var: Amount Sent to Other Player					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-13.455	-3.937				
	[14.406]	[9.401]				
	(9.920)	(13.302)				
Indicator: Neither Weak Nor Strong Belief in WC			4.256	16.365		
			[20.706]	[18.941]		
			(18.125)	(26.800)		
Indicator: Strong Belief in WC			-31.439	-11.790		
			[31.060]	[22.417]		
			(22.415)	(31.718)		
Indicator: Very Strong Belief in WC			-32.379	2.015		
			[43.750]	[29.841]		
			(30.749)	(42.222)		
Indicator: Strong or Very Strong Belief in WC					-14.118	-10.838
					[21.302]	[13.379]
					(13.239)	(18.930)
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-9.935					
	[11.906]					
	(9.869)					
Indicator: Neither Weak Nor Strong Belief in WC			-24.578			
			[24.787]			
			(28.909)			
Indicator: Strong Belief in WC			-20.035			
			[28.262]			
			(27.309)			
Indicator: Very Strong Belief in WC			-33.592			
			[36.431]			
			(30.812)			
Indicator: Strong or Very Strong Belief in WC					-4.334	
					[16.902]	
					(16.937)	
Interactions between Pl1 & Pl2 Beliefs:						
Pl 2 WC Scale*Pl 1 WC Scale	0.691	-2.723	0.661	-2.678		
	[4.428]	[3.093]	[4.438]	[3.102]		
	(3.219)	(4.376)	(3.216)	(4.389)		
Pl 2 SVS Indicator*Pl 1 SVS Indicator					-21.585	-25.189
					[25.271]	[17.333]
					(17.238)	(24.524)
Player 1 FE	N	Y	N	Y	N	Y
Observations	1040	1040	1040	1040	1040	1040
Clusters	520	520	520	520	520	520
Mean Dep. Var	468.9	468.9	468.9	468.9	468.9	468.9

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Amount Sent to Other Player* is the amount Player 1 sends to Player 2 in an anonymous dictator game. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve inwitchcraft. *p<0.1;**p<0.05;***p<0.01

Table A8: CYD Estimates with Interactions

	OLS Dep. Var: Chose Player as Dictator					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.137	-0.147				
	[0.027]***	[0.032]***				
	(0.039)***	(0.047)***				
Indicator: Neither Weak Nor Strong Belief in WC			-0.004	-0.009		
			[0.039]	[0.050]		
			(0.046)	(0.062)		
Indicator: Strong Belief in WC			-0.385	-0.399		
			[0.058]***	[0.069]***		
			(0.081)***	(0.100)***		
Indicator: Very Strong Belief in WC			-0.318	-0.313		
			[0.080]***	[0.097]***		
			(0.114)***	(0.140)**		
Indicator: Strong or Very Strong Belief in WC					-0.399	-0.399
					[0.039]***	[0.044]***
					(0.059)***	(0.068)***
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.003					
	[0.022]					
	(0.030)					
Indicator: Neither Weak Nor Strong Belief in WC			0.011			
			[0.046]			
			(0.030)			
Indicator: Strong Belief in WC			0.013			
			[0.052]			
			(0.059)			
Indicator: Very Strong Belief in WC			0.023			
			[0.067]			
			(0.088)			
Indicator: Strong or Very Strong Belief in WC					-0.022	
					[0.032]	
					(0.035)	
Interactions between Pl1 & Pl2 Beliefs:						
Pl 2 WC Scale*Pl 1 WC Scale	-0.002	-0.001	-0.003	-0.003		
	[0.008]	[0.010]	[0.008]	[0.010]		
	(0.012)	(0.014)	(0.012)	(0.014)		
Pl 2 SVS Indicator*Pl 1 SVS Indicator					0.044	0.045
					[0.046]	[0.052]
					(0.070)	(0.081)
Player 1 FE	N	Y	N	Y	N	Y
Observations	2080	2080	2080	2080	2080	2080
Clusters	520	520	520	520	520	520
Mean Dep. Var	0.500	0.500	0.500	0.500	0.500	0.500

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Chose Player as Dictator* takes the value 1 if Player 1 chose to Player 2 as their dictator. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A9: JOD Estimates with Interactions

	OLS: Dep. Var: Choice in JOD					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.131	-0.147				
	[0.055]**	[0.054]***				
	(0.052)**	(0.077)*				
Indicator: Neither Weak Nor Strong Belief in WC			-0.124	-0.067		
			[0.080]	[0.099]		
			(0.081)	(0.141)		
Indicator: Strong Belief in WC			-0.342	-0.360		
			[0.119]***	[0.129]***		
			(0.116)***	(0.183)**		
Indicator: Very Strong Belief in WC			-0.374	-0.355		
			[0.165]**	[0.168]**		
			(0.159)**	(0.238)		
Indicator: Strong or Very Strong Belief in WC					-0.213	-0.228
					[0.079]***	[0.071]***
					(0.072)***	(0.101)**
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.059					
	[0.045]					
	(0.044)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.100			
			[0.089]			
			(0.093)			
Indicator: Strong Belief in WC			-0.140			
			[0.108]			
			(0.108)			
Indicator: Very Strong Belief in WC			-0.194			
			[0.138]			
			(0.135)			
Indicator: Strong or Very Strong Belief in WC					-0.031	
					[0.065]	
					(0.065)	
Interactions between Pl1 & Pl2 Beliefs:						
Pl 2 WC Scale*Pl 1 WC Scale	0.030	0.036	0.032	0.037		
	[0.017]*	[0.017]**	[0.017]*	[0.017]**		
	(0.016)*	(0.024)	(0.016)*	(0.024)		
Pl 2 SVS Indicator*Pl 1 SVS Indicator					0.146	0.166
					[0.093]	[0.085]*
					(0.086)*	(0.120)
Player 1 FE	N	Y	N	Y	N	Y
Observations	1022	1022	1022	1022	1022	1022
Clusters	513	513	513	513	513	513
Mean Dep. Var	0.164	0.164	0.164	0.164	0.164	0.164

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Choice in JOD* takes the value of -1 if Player 1 chose to decrease the endowment of Player 2, 0 if Player 1 chose to do nothing, and 1 if Player 1 chose to increase the endowment of Player 2. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. *p<0.1;**p<0.05;***p<0.01

Table A10: JOD Chose to Increase with Interactions

	OLS: Dep. Var: Chose to Increase in JOD					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.061	-0.060				
	[0.038]	[0.037]				
	(0.036)*	(0.052)				
Indicator: Neither Weak Nor Strong Belief in WC			-0.055	0.013		
			[0.056]	[0.067]		
			(0.056)	(0.095)		
Indicator: Strong Belief in WC			-0.179	-0.150		
			[0.083]**	[0.088]*		
			(0.081)**	(0.125)		
Indicator: Very Strong Belief in WC			-0.171	-0.117		
			[0.114]	[0.115]		
			(0.110)	(0.163)		
Indicator: Strong or Very Strong Belief in WC					-0.096	-0.096
					[0.054]*	[0.048]**
					(0.048)**	(0.068)
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.023					
	[0.033]					
	(0.032)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.111			
			[0.065]*			
			(0.069)			
Indicator: Strong Belief in WC			-0.032			
			[0.079]			
			(0.078)			
Indicator: Very Strong Belief in WC			-0.095			
			[0.102]			
			(0.099)			
Indicator: Strong or Very Strong Belief in WC					0.027	
					[0.048]	
					(0.048)	
Interactions between Pl1 & Pl2 Beliefs:						
Pl 2 WC Scale*Pl 1 WC Scale	0.012	0.013	0.013	0.013		
	[0.012]	[0.011]	[0.012]	[0.012]		
	(0.011)	(0.016)	(0.011)	(0.016)		
Pl 2 SVS Indicator*Pl 1 SVS Indicator					0.035	0.043
					[0.064]	[0.057]
					(0.058)	(0.081)
Player 1 FE	N	Y	N	Y	N	Y
Observations	1022	1022	1022	1022	1022	1022
Clusters	513	513	513	513	513	513
Mean Dep. Var	0.323	0.323	0.323	0.323	0.323	0.323

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Chose to Increase in JOD* takes the value 1 if Player 1 chose to increase the endowment of Player 2. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. *p<0.1;**p<0.05;***p<0.01

Table A11: JOD Chose to Decrease with Interactions

	OLS: Dep. Var: Chose to Decrease in JOD					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	0.070	0.087				
	[0.030]**	[0.030]***				
	(0.028)**	(0.042)**				
Indicator: Neither Weak Nor Strong Belief in WC			0.069	0.081		
			[0.042]*	[0.054]		
			(0.041)*	(0.076)		
Indicator: Strong Belief in WC			0.163	0.210		
			[0.064]**	[0.069]***		
			(0.061)***	(0.098)**		
Indicator: Very Strong Belief in WC			0.203	0.238		
			[0.090]**	[0.091]***		
			(0.086)**	(0.129)*		
Indicator: Strong or Very Strong Belief in WC					0.118	0.132
					[0.044]***	[0.042]***
					(0.042)***	(0.060)**
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.036					
	[0.023]					
	(0.022)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.010			
			[0.046]			
			(0.045)			
Indicator: Strong Belief in WC			0.108			
			[0.053]**			
			(0.054)**			
Indicator: Very Strong Belief in WC			0.100			
			[0.068]			
			(0.066)			
Indicator: Strong or Very Strong Belief in WC					0.058	
					[0.032]*	
					(0.032)*	
Interactions between Pl1 & Pl2 Beliefs:						
Pl 2 WC Scale*Pl 1 WC Scale	-0.018	-0.023	-0.019	-0.024		
	[0.009]**	[0.009]**	[0.009]**	[0.009]***		
	(0.009)**	(0.013)*	(0.009)**	(0.013)*		
Pl 2 SVS Indicator*Pl 1 SVS Indicator					-0.111	-0.122
					[0.051]**	[0.049]**
					(0.050)**	(0.069)*
Player 1 FE	N	Y	N	Y	N	Y
Observations	1022	1022	1022	1022	1022	1022
Clusters	513	513	513	513	513	513
Mean Dep. Var	0.159	0.159	0.159	0.159	0.159	0.159

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Chose to Decrease in JOD* takes the value 1 if Player 1 chose to decrease the endowment of Player 2. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. *p<0.1;**p<0.05;***p<0.01

Table A12: DG Estimates with Bilateral Characteristics

	OLS Dep. Var: Amount Sent to Other Player															
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Pl 2 Strength of Belief in WC Scale, 1-4	-11.432	-12.717	-11.468	-12.480	-11.374	-12.493	-11.447	-12.729	-11.450	-12.682	-11.461	-12.772	-10.931	-11.732	-10.810	-11.294
	[4.898]**	[3.961]***	[4.894]**	[3.955]***	[4.895]**	[3.943]***	[4.898]**	[3.954]***	[4.894]**	[3.949]***	[4.894]**	[3.958]***	[5.179]**	[4.035]***	[5.200]**	[4.058]***
	(3.951)***	(5.604)**	(3.956)***	(5.596)**	(3.946)***	(5.579)**	(3.956)***	(5.595)**	(3.951)***	(5.587)**	(3.948)***	(5.601)**	(4.137)***	(5.709)**	(4.152)***	(5.742)**
Pl 1 Strength of Belief in WC Scale, 1-4	-8.033		-8.028		-7.994		-7.874		-8.067		-8.019		-8.104		-7.924	
	[5.000]		[4.999]		[4.997]		[5.019]		[5.000]		[4.997]		[4.995]		[5.030]	
	(6.135)		(6.134)		(6.130)		(6.163)		(6.135)		(6.126)		(6.127)		(6.173)	
Same Sex	1.308	1.032													1.660	1.684
	[11.291]	[11.590]													[11.334]	[11.477]
	(11.436)	(16.399)													(11.462)	(16.238)
Same Age			1.361	-18.290											1.928	-17.420
			[11.233]	[13.377]											[11.323]	[13.263]
			(11.447)	(18.927)											(11.534)	(18.765)
Same Educ. Level					-7.321	-25.217									-7.264	-24.134
					[12.256]	[11.259]**									[12.316]	[11.206]**
					(11.466)	(15.930)									(11.580)	(15.856)
Same Tribe							-6.937	0.043							-7.469	-2.134
							[11.264]	[13.740]							[11.293]	[13.406]
							(11.605)	(19.440)							(11.542)	(18.969)
Same Gemena									6.258	5.796					6.861	6.054
									[11.245]	[12.702]					[11.276]	[12.408]
									(10.548)	(17.972)					(10.506)	(17.556)
Same Christian Belief											-1.061	-3.939			-1.526	-4.056
											[11.242]	[11.411]			[11.296]	[11.282]
											(10.660)	(16.145)			(10.688)	(15.962)
Same WC Belief													-4.812	-9.184	-5.306	-8.798
													[12.976]	[11.189]	[13.065]	[11.102]
													(11.393)	(15.832)	(11.384)	(15.708)
Player 1 FE	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y
Observations	1040	1040	1040	1040	1040	1040	1040	1040	1040	1040	1040	1040	1040	1040	1040	1040
Clusters	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520
Mean Dep. Var	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). Even numbered columns include Player 1 fixed effects. *Amount Sent to Other Player* is the amount Player 1 sends to Player 2 in an anonymous dictator game. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. *p<0.1; **p<0.05; ***p<0.01

Table A13: CYD Estimates with Bilateral Characteristics

	OLS Dep. Var: Chose Player as Dictator															
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Pl 2 Strength of Belief in WC Scale, 1-4	-0.142	-0.149	-0.142	-0.149	-0.142	-0.149	-0.142	-0.149	-0.142	-0.150	-0.142	-0.149	-0.139	-0.147	-0.140	-0.147
	[0.009]***	[0.011]***	[0.009]***	[0.011]***	[0.009]***	[0.011]***	[0.009]***	[0.011]***	[0.009]***	[0.011]***	[0.009]***	[0.011]***	[0.010]***	[0.012]***	[0.010]***	[0.012]***
	(0.013)***	(0.016)***	(0.013)***	(0.016)***	(0.013)***	(0.016)***	(0.013)***	(0.016)***	(0.013)***	(0.016)***	(0.013)***	(0.016)***	(0.014)***	(0.017)***	(0.014)***	(0.017)***
Pl 1 Strength of Belief in WC Scale, 1-4	-0.002		-0.002		-0.002		-0.001		-0.002		-0.002		-0.001		-0.001	
	[0.009]		[0.009]		[0.009]		[0.009]		[0.009]		[0.009]		[0.009]		[0.009]	
	(0.001)		(0.001)		(0.001)		(0.001)		(0.001)		(0.001)		(0.001)		(0.001)	
Same Sex	0.002	0.004													0.003	0.006
	[0.021]	[0.028]													[0.021]	[0.028]
	(0.021)	(0.032)													(0.021)	(0.032)
Same Age			0.011	0.010											0.011	0.011
			[0.021]	[0.028]											[0.021]	[0.028]
			(0.022)	(0.033)											(0.022)	(0.033)
Same Educ. Level					0.007	0.008									0.006	0.007
					[0.022]	[0.029]									[0.022]	[0.029]
					(0.022)	(0.033)									(0.022)	(0.033)
Same Tribe							-0.026	-0.034							-0.026	-0.034
							[0.021]	[0.028]							[0.021]	[0.028]
							(0.022)	(0.035)							(0.022)	(0.035)
Same Gemena									0.018	0.022					0.019	0.025
									[0.021]	[0.027]					[0.021]	[0.027]
									(0.022)	(0.032)					(0.022)	(0.032)
Same Christian Belief											-0.007	-0.011			-0.007	-0.012
											[0.021]	[0.027]			[0.021]	[0.027]
											(0.021)	(0.031)			(0.021)	(0.031)
Same WC Belief													-0.023	-0.024	-0.023	-0.025
													[0.025]	[0.032]	[0.025]	[0.032]
													(0.029)	(0.041)	(0.029)	(0.041)
Player 1 FE	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y
Observations	2080	2080	2080	2080	2080	2080	2080	2080	2080	2080	2080	2080	2080	2080	2080	2080
Clusters	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520
Mean Dep. Var	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). Even numbered columns include Player 1 fixed effects. *Chose Player as Dictator* is an indicator variable equal to 1 if this player was selected. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. *p<0.1; **p<0.05; ***p<0.01

Table A14: JOD Choice Estimates with Bilateral Characteristics

	OLS Dep. Var: Choice in JOD															
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Pl 2 Strength of Belief in WC Scale, 1-4	-0.039	-0.038	-0.039	-0.039	-0.039	-0.039	-0.039	-0.040	-0.039	-0.039	-0.039	-0.039	-0.050	-0.046	-0.049	-0.046
	[0.019]**	[0.019]**	[0.019]**	[0.019]**	[0.019]**	[0.019]**	[0.019]**	[0.019]**	[0.019]**	[0.019]**	[0.019]**	[0.019]**	[0.020]**	[0.020]**	[0.020]**	[0.020]**
	(0.018)**	(0.026)	(0.018)**	(0.027)	(0.018)**	(0.027)	(0.018)**	(0.027)	(0.018)**	(0.027)	(0.018)**	(0.027)	(0.019)***	(0.028)	(0.019)***	(0.028)*
Pl 1 Strength of Belief in WC Scale, 1-4	0.020		0.020		0.021		0.021		0.021		0.021		0.021		0.020	
	[0.019]		[0.019]		[0.019]		[0.019]		[0.019]		[0.019]		[0.019]		[0.019]	
	(0.020)		(0.020)		(0.020)		(0.020)		(0.020)		(0.020)		(0.020)		(0.020)	
Same Sex	0.057	0.110													0.058	0.112
	[0.042]	[0.054]**													[0.042]	[0.054]**
	(0.041)	(0.076)													(0.041)	(0.076)
Same Age			0.062	0.048											0.060	0.048
			[0.042]	[0.055]											[0.042]	[0.055]
			(0.042)	(0.078)											(0.042)	(0.078)
Same Educ. Level					-0.005	-0.003									-0.007	0.004
					[0.045]	[0.060]									[0.045]	[0.061]
					(0.045)	(0.085)									(0.046)	(0.086)
Same Tribe							-0.015	-0.091							-0.013	-0.088
							[0.042]	[0.054]*							[0.042]	[0.055]
							(0.042)	(0.077)							(0.042)	(0.077)
Same Gemena									0.052	0.048					0.056	0.043
									[0.042]	[0.056]					[0.042]	[0.057]
									(0.043)	(0.080)					(0.043)	(0.081)
Same Christian Belief											0.016	0.004			0.016	0.002
											[0.042]	[0.053]			[0.042]	[0.053]
											(0.039)	(0.075)			(0.039)	(0.075)
Same WC Belief													0.103	0.063	0.098	0.050
													[0.051]**	[0.063]	[0.051]*	[0.063]
													(0.051)**	(0.089)	(0.051)*	(0.090)
Player 1 FE	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y
Observations	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022	1022
Clusters	513	513	513	513	513	513	513	513	513	513	513	513	513	513	513	513
Mean Dep. Var	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). Even numbered columns include Player 1 fixed effects. *Choice in JOD* takes the value of -1 if Player 1 chose to decrease the endowment of Player 2, 0 if Player 1 chose to do nothing, and 1 if Player 1 chose to increase the endowment of Player 2. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. *p<0.1; **p<0.05; ***p<0.01



Figure A1: Satellite Image of the Study City with Sampling Polygons

Table A15: Payout Inequality in DG

	OLS Dep. Var: Payout Inequality in DG					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	6.338	10.194				
	[7.377]	[5.883]*				
	(5.997)	(8.324)				
Indicator: Neither Weak Nor Strong Belief in WC			7.312	17.182		
			[23.007]	[23.748]		
			(22.848)	(33.601)		
Indicator: Strong Belief in WC			44.236	43.873		
			[23.555]*	[20.201]**		
			(19.851)**	(28.582)		
Indicator: Very Strong Belief in WC			7.745	18.977		
			[23.282]	[22.001]		
			(21.338)	(31.129)		
Indicator: Strong or Very Strong Belief in WC					23.404	23.929
					[16.688]	[12.177]**
					(12.229)*	(17.229)
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	9.502					
	[7.673]					
	(9.414)					
Indicator: Neither Weak Nor Strong Belief in WC			8.919			
			[33.526]			
			(40.712)			
Indicator: Strong Belief in WC			40.273			
			[26.409]			
			(32.159)			
Indicator: Very Strong Belief in WC			29.197			
			[24.718]			
			(30.573)			
Indicator: Strong or Very Strong Belief in WC					30.568	
					[18.776]	
					(22.829)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	1040	1040	1040	1040	1040	1040
Clusters	520	520	520	520	520	520
Mean Dep. Var	252.5	252.5	252.5	252.5	252.5	252.5

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Columns 2, 4, and 6 include Player 1 fixed effects. *Payout Inequality in DG* is the absolute value of the difference in payouts between Player 1 and Player 2 in an anonymous dictator game. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A16: Payout Inequality in JOD

	OLS: Dep. Var: Payout Inequality JOD					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-17.843	-12.135				
	[15.812]	[15.273]				
	(14.709)	(21.610)				
Indicator: Neither Weak Nor Strong Belief in WC			-7.674	69.962		
			[49.104]	[62.054]		
			(49.029)	(87.800)		
Indicator: Strong Belief in WC			-79.583	-32.030		
			[47.293]*	[54.591]		
			(45.959)*	(77.241)		
Indicator: Very Strong Belief in WC			-34.521	20.956		
			[50.045]	[55.829]		
			(47.837)	(78.993)		
Indicator: Strong or Very Strong Belief in WC					-54.403	-43.089
					[34.453]	[31.685]
					(31.542)*	(44.832)
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.749					
	[15.702]					
	(16.956)					
Indicator: Neither Weak Nor Strong Belief in WC			-138.899			
			[65.688]**			
			(70.297)**			
Indicator: Strong Belief in WC			52.293			
			[55.106]			
			(57.722)			
Indicator: Very Strong Belief in WC			-27.240			
			[50.201]			
			(53.708)			
Indicator: Strong or Very Strong Belief in WC					55.068	
					[38.820]	
					(42.080)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	1022	1022	1022	1022	1022	1022
Clusters	513	513	513	513	513	513
Mean Dep. Var	514.3	514.3	514.3	514.3	514.3	514.3

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Odd columns include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Payout Inequality JOD* is the absolute value of the difference in payouts between Player 1 and Player 2. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where th eomitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. *p<0.1; ** p < 0.05; *** p < 0.01

Table A17: DG Appropriate to Send 0 CF

	OLS Dep. Var: Appropriate to Send 0 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	0.003	0.003				
	[0.007]	[0.007]				
	(0.007)	(0.010)				
Indicator: Neither Weak Nor Strong Belief in WC			0.007	0.005		
			[0.025]	[0.030]		
			(0.025)	(0.043)		
Indicator: Strong Belief in WC			0.001	-0.006		
			[0.023]	[0.032]		
			(0.023)	(0.045)		
Indicator: Very Strong Belief in WC			0.010	0.019		
			[0.023]	[0.021]		
			(0.023)	(0.030)		
Indicator: Strong or Very Strong Belief in WC					0.002	0.004
					[0.016]	[0.014]
					(0.015)	(0.020)
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.013					
	[0.006]**					
	(0.006)**					
Indicator: Neither Weak Nor Strong Belief in WC			-0.007			
			[0.015]			
			(0.015)			
Indicator: Strong Belief in WC			-0.001			
			[0.013]			
			(0.014)			
Indicator: Very Strong Belief in WC			0.033			
			[0.018]*			
			(0.019)*			
Indicator: Strong or Very Strong Belief in WC					0.023	
					[0.013]*	
					(0.013)*	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	1.031	1.031	1.031	1.031	1.031	1.031

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 0 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft.
* p < 0.1; ** p < 0.05; *** p < 0.01

Table A18: DG Appropriate to Send 100 CF

	OLS Dep. Var: Appropriate to Send 100 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	0.031	0.035				
	[0.019]	[0.014]**				
	(0.014)**	(0.020)*				
Indicator: Neither Weak Nor Strong Belief in WC			0.054	0.166		
			[0.059]	[0.061]***		
			(0.059)	(0.086)*		
Indicator: Strong Belief in WC			0.108	0.209		
			[0.057]*	[0.049]***		
			(0.048)**	(0.069)***		
Indicator: Very Strong Belief in WC			0.084	0.097		
			[0.059]	[0.056]*		
			(0.052)	(0.079)		
Indicator: Strong or Very Strong Belief in WC					0.070	0.073
					[0.043]	[0.030]**
					(0.030)**	(0.042)*
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.005					
	[0.022]					
	(0.027)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.222			
			[0.086]**			
			(0.102)**			
Indicator: Strong Belief in WC			-0.246			
			[0.075]***			
			(0.091)***			
Indicator: Very Strong Belief in WC			-0.048			
			[0.072]			
			(0.088)			
Indicator: Strong or Very Strong Belief in WC					-0.030	
					[0.051]	
					(0.062)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	1.402	1.402	1.402	1.402	1.402	1.402

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 100 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A19: DG Appropriate to Send 200 CF

	OLS Dep. Var: Appropriate to Send 200 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	0.025	0.045				
	[0.021]	[0.015]***				
	(0.015)	(0.021)**				
Indicator: Neither Weak Nor Strong Belief in WC			-0.087	0.062		
			[0.067]	[0.068]		
			(0.068)	(0.096)		
Indicator: Strong Belief in WC			0.069	0.147		
			[0.067]	[0.053]***		
			(0.055)	(0.075)*		
Indicator: Very Strong Belief in WC			0.034	0.108		
			[0.065]	[0.056]*		
			(0.056)	(0.080)		
Indicator: Strong or Very Strong Belief in WC					0.094	0.098
					[0.048]*	[0.032]***
					(0.032)***	(0.045)**
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.018					
	[0.024]					
	(0.030)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.285			
			[0.104]***			
			(0.128)**			
Indicator: Strong Belief in WC			-0.155			
			[0.086]*			
			(0.107)			
Indicator: Very Strong Belief in WC			-0.029			
			[0.080]			
			(0.098)			
Indicator: Strong or Very Strong Belief in WC					0.044	
					[0.060]	
					(0.075)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	1.864	1.864	1.864	1.864	1.864	1.864

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 200 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A20: DG Appropriate to Send 300 CF

	OLS Dep. Var: Appropriate to Send 300 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.000	0.028				
	[0.022]	[0.013]**				
	(0.015)	(0.019)				
Indicator: Neither Weak Nor Strong Belief in WC			-0.093	0.049		
			[0.073]	[0.059]		
			(0.073)	(0.083)		
Indicator: Strong Belief in WC			0.016	0.016		
			[0.073]	[0.044]		
			(0.058)	(0.063)		
Indicator: Very Strong Belief in WC			-0.034	0.121		
			[0.069]	[0.052]**		
			(0.059)	(0.073)*		
Indicator: Strong or Very Strong Belief in WC					0.036	0.045
					[0.051]	[0.028]
					(0.029)	(0.040)
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.010					
	[0.025]					
	(0.032)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.288			
			[0.114]**			
			(0.146)**			
Indicator: Strong Belief in WC			-0.105			
			[0.086]			
			(0.115)			
Indicator: Very Strong Belief in WC			-0.048			
			[0.078]			
			(0.102)			
Indicator: Strong or Very Strong Belief in WC					0.051	
					[0.064]	
					(0.083)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	2.321	2.321	2.321	2.321	2.321	2.321

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 300 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A21: DG Appropriate to Send 400 CF

	OLS Dep. Var: Appropriate to Send 400 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	0.009	0.019				
	[0.020]	[0.012]				
	(0.013)	(0.017)				
Indicator: Neither Weak Nor Strong Belief in WC			0.005	0.092		
			[0.066]	[0.055]*		
			(0.066)	(0.077)		
Indicator: Strong Belief in WC			0.030	0.034		
			[0.065]	[0.039]		
			(0.051)	(0.056)		
Indicator: Very Strong Belief in WC			0.022	0.104		
			[0.061]	[0.045]**		
			(0.051)	(0.063)*		
Indicator: Strong or Very Strong Belief in WC					0.024	0.025
					[0.045]	[0.027]
					(0.027)	(0.038)
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.013					
	[0.022]					
	(0.028)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.330			
			[0.105]***			
			(0.137)**			
Indicator: Strong Belief in WC			-0.040			
			[0.071]			
			(0.093)			
Indicator: Very Strong Belief in WC			-0.047			
			[0.067]			
			(0.087)			
Indicator: Strong or Very Strong Belief in WC					0.090	
					[0.057]	
					(0.073)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	2.784	2.784	2.784	2.784	2.784	2.784

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 400 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A22: DG Appropriate to Send 500 CF

	OLS Dep. Var: Appropriate to Send 500 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.032	-0.033				
	[0.015]**	[0.013]***				
	(0.013)**	(0.018)*				
Indicator: Neither Weak Nor Strong Belief in WC			-0.006	-0.010		
			[0.044]	[0.051]		
			(0.045)	(0.072)		
Indicator: Strong Belief in WC			-0.062	-0.070		
			[0.047]	[0.049]		
			(0.043)	(0.069)		
Indicator: Very Strong Belief in WC			-0.088	-0.084		
			[0.047]*	[0.049]*		
			(0.046)*	(0.069)		
Indicator: Strong or Very Strong Belief in WC					-0.072	-0.072
					[0.034]**	[0.026]***
					(0.027)***	(0.037)*
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.002					
	[0.016]					
	(0.018)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.075			
			[0.065]			
			(0.079)			
Indicator: Strong Belief in WC			-0.112			
			[0.054]**			
			(0.060)*			
Indicator: Very Strong Belief in WC			-0.026			
			[0.050]			
			(0.056)			
Indicator: Strong or Very Strong Belief in WC					-0.026	
					[0.038]	
					(0.044)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	3.759	3.759	3.759	3.759	3.759	3.759

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 500 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A23: DG Appropriate to Send 600 CF

	OLS Dep. Var: Appropriate to Send 600 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.034	-0.026				
	[0.019]*	[0.015]*				
	(0.015)**	(0.021)				
Indicator: Neither Weak Nor Strong Belief in WC			-0.164	-0.073		
			[0.064]**	[0.069]		
			(0.065)**	(0.098)		
Indicator: Strong Belief in WC			-0.161	-0.095		
			[0.060]***	[0.050]*		
			(0.051)***	(0.071)		
Indicator: Very Strong Belief in WC			-0.110	-0.081		
			[0.060]*	[0.055]		
			(0.054)**	(0.078)		
Indicator: Strong or Very Strong Belief in WC					-0.056	-0.053
					[0.045]	[0.034]
					(0.034)*	(0.047)
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.009					
	[0.021]					
	(0.025)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.224			
			[0.096]**			
			(0.114)*			
Indicator: Strong Belief in WC			0.003			
			[0.067]			
			(0.080)			
Indicator: Very Strong Belief in WC			-0.085			
			[0.065]			
			(0.078)			
Indicator: Strong or Very Strong Belief in WC					0.044	
					[0.052]	
					(0.063)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	3.537	3.537	3.537	3.537	3.537	3.537

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 600 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A24: DG Appropriate to Send 700 CF

	OLS Dep. Var: Appropriate to Send 700 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.058	-0.050				
	[0.025]**	[0.016]***				
	(0.017)***	(0.023)**				
Indicator: Neither Weak Nor Strong Belief in WC			-0.235	-0.187		
			[0.083]***	[0.072]***		
			(0.083)***	(0.102)*		
Indicator: Strong Belief in WC			-0.193	-0.153		
			[0.079]**	[0.059]**		
			(0.066)***	(0.084)*		
Indicator: Very Strong Belief in WC			-0.202	-0.198		
			[0.079]**	[0.059]***		
			(0.065)***	(0.084)**		
Indicator: Strong or Very Strong Belief in WC					-0.084	-0.085
					[0.058]	[0.036]**
					(0.036)**	(0.051)*
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.025					
	[0.027]					
	(0.035)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.138			
			[0.112]			
			(0.135)			
Indicator: Strong Belief in WC			-0.116			
			[0.093]			
			(0.118)			
Indicator: Very Strong Belief in WC			-0.111			
			[0.086]			
			(0.111)			
Indicator: Strong or Very Strong Belief in WC					-0.049	
					[0.066]	
					(0.083)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	3.218	3.218	3.218	3.218	3.218	3.218

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 700 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A25: DG Appropriate to Send 800 CF

	OLS Dep. Var: Appropriate to Send 800 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.063	-0.052				
	[0.031]**	[0.018]***				
	(0.022)***	(0.026)**				
Indicator: Neither Weak Nor Strong Belief in WC			-0.178	-0.017		
			[0.107]*	[0.076]		
			(0.107)*	(0.108)		
Indicator: Strong Belief in WC			-0.201	-0.138		
			[0.099]**	[0.067]**		
			(0.080)**	(0.094)		
Indicator: Very Strong Belief in WC			-0.199	-0.116		
			[0.099]**	[0.066]*		
			(0.083)**	(0.094)		
Indicator: Strong or Very Strong Belief in WC					-0.114	-0.118
					[0.072]	[0.038]***
					(0.040)***	(0.054)**
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.007					
	[0.034]					
	(0.044)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.224			
			[0.142]			
			(0.185)			
Indicator: Strong Belief in WC			-0.220			
			[0.116]*			
			(0.152)			
Indicator: Very Strong Belief in WC			-0.084			
			[0.109]			
			(0.143)			
Indicator: Strong or Very Strong Belief in WC					-0.035	
					[0.083]	
					(0.109)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	2.837	2.837	2.837	2.837	2.837	2.837

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 800 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A26: DG Appropriate to Send 900 CF

	OLS Dep. Var: Appropriate to Send 900 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.075	-0.067				
	[0.036]**	[0.018]***				
	(0.023)***	(0.026)***				
Indicator: Neither Weak Nor Strong Belief in WC			-0.179	-0.122		
			[0.122]	[0.080]		
			(0.122)	(0.113)		
Indicator: Strong Belief in WC			-0.208	-0.198		
			[0.114]*	[0.074]***		
			(0.091)**	(0.105)*		
Indicator: Very Strong Belief in WC			-0.239	-0.192		
			[0.113]**	[0.062]***		
			(0.091)***	(0.088)**		
Indicator: Strong or Very Strong Belief in WC					-0.137	-0.137
					[0.082]*	[0.041]***
					(0.042)***	(0.057)**
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.041					
	[0.039]					
	(0.051)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.143			
			[0.167]			
			(0.212)			
Indicator: Strong Belief in WC			-0.358			
			[0.135]***			
			(0.176)**			
Indicator: Very Strong Belief in WC			-0.161			
			[0.124]			
			(0.163)			
Indicator: Strong or Very Strong Belief in WC					-0.167	
					[0.096]*	
					(0.124)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	2.551	2.551	2.551	2.551	2.551	2.551

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 900 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A27: DG Appropriate to Send 1000 CF

	OLS Dep. Var: Appropriate to Send 1000 CF to the Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.097	-0.098				
	[0.040]**	[0.021]***				
	(0.026)***	(0.029)***				
Indicator: Neither Weak Nor Strong Belief in WC			-0.171	-0.171		
			[0.133]	[0.089]*		
			(0.133)	(0.126)		
Indicator: Strong Belief in WC			-0.285	-0.295		
			[0.125]**	[0.077]***		
			(0.097)***	(0.108)***		
Indicator: Very Strong Belief in WC			-0.283	-0.274		
			[0.127]**	[0.077]***		
			(0.105)***	(0.109)**		
Indicator: Strong or Very Strong Belief in WC					-0.202	-0.202
					[0.091]**	[0.044]***
					(0.045)***	(0.062)***
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.008					
	[0.042]					
	(0.055)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.165			
			[0.184]			
			(0.233)			
Indicator: Strong Belief in WC			-0.316			
			[0.148]**			
			(0.195)			
Indicator: Very Strong Belief in WC			-0.032			
			[0.136]			
			(0.178)			
Indicator: Strong or Very Strong Belief in WC					-0.059	
					[0.105]	
					(0.137)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	2.354	2.354	2.354	2.354	2.354	2.354

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are two observations per respondent for the two rounds of the DG. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Send 1000 CF to Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table A28: CYD Appropriate with Interactions

	OLS Dep. Var: Appropriate to Choose Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.377	-0.390				
	[0.055]***	[0.057]***				
	(0.073)***	(0.087)***				
Indicator: Neither Weak Nor Strong Belief in WC			0.086	0.136		
			[0.076]	[0.090]		
			(0.087)	(0.116)		
Indicator: Strong Belief in WC			-0.767	-0.725		
			[0.119]***	[0.125]***		
			(0.159)***	(0.190)***		
Indicator: Very Strong Belief in WC			-0.966	-0.940		
			[0.165]***	[0.171]***		
			(0.215)***	(0.255)***		
Indicator: Strong or Very Strong Belief in WC					-0.836	-0.837
					[0.082]***	[0.085]***
					(0.119)***	(0.138)***
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	-0.089					
	[0.045]**					
	(0.056)					
Indicator: Neither Weak Nor Strong Belief in WC			-0.009			
			[0.093]			
			(0.092)			
Indicator: Strong Belief in WC			-0.102			
			[0.101]			
			(0.120)			
Indicator: Very Strong Belief in WC			-0.223			
			[0.133]*			
			(0.166)			
Indicator: Strong or Very Strong Belief in WC					-0.088	
					[0.063]	
					(0.071)	
Interactions between Pl1 & Pl2 Beliefs:						
Pl 2 WC Scale*Pl 1 WC Scale	0.034	0.034	0.032	0.031		
	[0.017]**	[0.018]*	[0.017]*	[0.017]*		
	(0.023)	(0.027)	(0.022)	(0.026)		
Pl 2 SVS Indicator*Pl 1 SVS Indicator					0.170	0.173
					[0.097]*	[0.099]*
					(0.137)	(0.158)
Player 1 FE	N	Y	N	Y	N	Y
Observations	1796	1796	1796	1796	1796	1796
Clusters	449	449	449	449	449	449
Mean Dep. Var	3.076	3.076	3.076	3.076	3.076	3.076

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are four observations per respondent, one corresponding to each person that they could choose between for the two rounds of the CYD. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Choose Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. * p < 0.1; ** p < 0.05; *** p < 0.01

Table A29: JOD Appropriate to Decrease

	OLS: Dep. Var: Appropriate to Decrease Payout of Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	0.040	0.051				
	[0.016]**	[0.014]***				
	(0.013)***	(0.019)***				
Indicator: Neither Weak Nor Strong Belief in WC			0.040	0.076		
			[0.046]	[0.058]		
			(0.046)	(0.082)		
Indicator: Strong Belief in WC			0.143	0.134		
			[0.051]***	[0.054]**		
			(0.046)***	(0.076)*		
Indicator: Very Strong Belief in WC			0.097	0.151		
			[0.049]**	[0.050]***		
			(0.045)**	(0.071)**		
Indicator: Strong or Very Strong Belief in WC					0.100	0.103
					[0.036]***	[0.029]***
					(0.028)***	(0.041)**
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.001					
	[0.017]					
	(0.019)					
Indicator: Neither Weak Nor Strong Belief in WC			0.010			
			[0.077]			
			(0.090)			
Indicator: Strong Belief in WC			-0.008			
			[0.058]			
			(0.067)			
Indicator: Very Strong Belief in WC			0.001			
			[0.053]			
			(0.061)			
Indicator: Strong or Very Strong Belief in WC					-0.006	
					[0.042]	
					(0.048)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	1.239	1.239	1.239	1.239	1.239	1.239

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are four observations per respondent, one corresponding to each person that they could choose between for the two rounds of the CYD. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Decrease Payout of Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. *p<0.1; ** p < 0.05; *** p < 0.01

Table A30: JOD Appropriate to Increase

	OLS: Dep. Var: Appropriate to Increase Payout of Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.034	-0.043				
	[0.019]*	[0.016]***				
	(0.016)**	(0.023)*				
Indicator: Neither Weak Nor Strong Belief in WC			-0.024	-0.060		
			[0.061]	[0.070]		
			(0.062)	(0.098)		
Indicator: Strong Belief in WC			-0.100	-0.118		
			[0.063]	[0.066]*		
			(0.054)*	(0.094)		
Indicator: Very Strong Belief in WC			-0.086	-0.122		
			[0.060]	[0.057]**		
			(0.056)	(0.081)		
Indicator: Strong or Very Strong Belief in WC					-0.081	-0.089
					[0.044]*	[0.035]**
					(0.035)**	(0.049)*
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.008					
	[0.020]					
	(0.024)					
Indicator: Neither Weak Nor Strong Belief in WC			0.062			
			[0.084]			
			(0.096)			
Indicator: Strong Belief in WC			0.003			
			[0.072]			
			(0.083)			
Indicator: Very Strong Belief in WC			0.037			
			[0.066]			
			(0.077)			
Indicator: Strong or Very Strong Belief in WC					0.000	
					[0.050]	
					(0.058)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	3.653	3.653	3.653	3.653	3.653	3.653

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are four observations per respondent, one corresponding to each person that they could choose between for the two rounds of the CYD. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Increase Payout of Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. *p<0.1; ** p < 0.05; *** p < 0.01

Table A31: JOD Appropriate to Neither

	OLS: Dep. Var: Appropriate to Neither Increase nor Decrease Payout of Other Player, 1-4					
	(1)	(2)	(3)	(4)	(5)	(6)
Player 2 Characteristics:						
Strength of Belief in WC Scale, 1-4	-0.003	0.002				
	[0.020]	[0.013]				
	(0.014)	(0.018)				
Indicator: Neither Weak Nor Strong Belief in WC			-0.112	-0.035		
			[0.065]*	[0.053]		
			(0.065)*	(0.075)		
Indicator: Strong Belief in WC			-0.058	0.021		
			[0.064]	[0.050]		
			(0.054)	(0.070)		
Indicator: Very Strong Belief in WC			-0.029	-0.028		
			[0.065]	[0.049]		
			(0.055)	(0.069)		
Indicator: Strong or Very Strong Belief in WC					0.014	0.014
					[0.046]	[0.026]
					(0.027)	(0.037)
Player 1 Characteristics:						
Strength in Belief in WC Scale, 1-4	0.045					
	[0.023]*					
	(0.030)					
Indicator: Neither Weak Nor Strong Belief in WC			0.120			
			[0.098]			
			(0.122)			
Indicator: Strong Belief in WC			0.053			
			[0.083]			
			(0.104)			
Indicator: Very Strong Belief in WC			0.152			
			[0.077]**			
			(0.099)			
Indicator: Strong or Very Strong Belief in WC					0.070	
					[0.058]	
					(0.073)	
Player 1 FE	N	Y	N	Y	N	Y
Observations	898	898	898	898	898	898
Clusters	449	449	449	449	449	449
Mean Dep. Var	3.385	3.385	3.385	3.385	3.385	3.385

Notes: Robust standard errors in []. Standard errors clustered at the individual level in (). The data are stacked so that there are four observations per respondent, one corresponding to each person that they could choose between for the two rounds of the CYD. All columns include fixed effects for Player 2 characteristics: sex, educational attainment, grew up in Gemena, strength of belief in Christian God, same tribe as Player 1. Columns 1, 3, and 5 include fixed effects for the equivalent Player 1 characteristics. Even columns include Player 1 fixed effects. *Appropriate to Neither Increase nor Decrease Payout of Other Player* is a 1 to 4 variable, where (1) is very socially inappropriate, (2) is somewhat socially inappropriate, (3) is somewhat socially appropriate, and (4) is very socially appropriate. *Witchcraft* is a variable from 1 to 4, where (1) is a weak belief in witchcraft, (2) neither weak nor strong belief in witchcraft, (3) strong belief in witchcraft, (4) very strong belief in witchcraft. Columns 1 and 2 present the results with witchcraft as a 1 to 4 variable. Columns 3 and 4 present the results with fixed effects for witchcraft beliefs of Players 1 and 2, where the omitted category is weak belief in witchcraft. Columns 5 and 6 present the results with an indicator variable that equals 1 if an individual has a strong or very strong belief in witchcraft, where the omitted category is weak belief in witchcraft or neither believe nor disbelieve in witchcraft. *p<0.1; ** p < 0.05; *** p < 0.01