

Inter-Ethnic trust amongst the Urban Poor Youth in Nairobi

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April 4 2016

Acknowledgements

This study was done as part of the senior essay requirement for the Economics Department at Yale University. I'd like to thank the department for generously agreeing to fund the data collection for my study. Thank you to my advisor, Professor Cheryl Doss for supporting me throughout the year and for pushing me to challenge myself with the design and pursuit of this study. Thank you to the Busara Behavioral Economics Center in Nairobi for accommodating my research. In particular, thank you to James Vancel and Faith Vosevwa who put a lot of time and energy into making the experiment happen. Thank you to the Governor of Nairobi, Dr. Evans Kidero for agreeing to meet me to discuss the implications of the findings of this study. Thank you to Grace Brittan, Kelsey Larson, Susan Mboya, Gladys Mboya, Natasha Mboya, TJ Mboya, Charles Mbindyo, Caroline Mbindyo, Betsy Sledge, Michael Xu, Professor Samuel Kortum, Professor Jose Espin-Sanchez and Professor Christopher Udry for all your comments and suggestions. Thank you to all the people who agreed to participate and provide information for the study. Finally, thank you to my all my friends and family who encouraged and supported me in the design, execution and analysis of my experiment.

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Abstract

Do young people in Kenya mistrust other people based on their ethnicity? I carry out the Trust Game (Berg et al. 1995) to analyze whether young people in Kenya mistrust non co-ethnics and trust co-ethnics. I find that people trust their co-ethnics significantly more than non co-ethnics and that people who are interested in politics are more likely to carry this bias. I also find that attitudes toward tribalism do not reflect actual behavior.

Introduction

A taxi driver once asked me if I was a Luo – the name of a large tribe in Kenya. I told him that I was a quarter Luo as all four of my grandparents were from different tribes. He then asked me what tribe I would marry into. Before I could answer he interjected and said, “I guess it doesn’t matter for you. You young people don’t have to worry about tribalism like we did”.

This paper tests for interethnic trust amongst the urban poor youth in Nairobi. Whilst tribalism is a known problem in Kenya, I seek to see whether the younger generation who is believed not to be tribal centered, still carries the baggage of tribalism. Ethnic rivalries have been largely political and until today, Kenyans still vote in ethnic blocks. I carried out the ‘Trust Game’ (Berg, 1995) for 212 participants living in Kibera, a slum in Nairobi, Kenya. The ‘Trust Game’ would analyze how young people trust other people with their money based on ethnicity alone. Such an experiment would be able to capture ethnic biases outside of politics and voting trends. Nairobi, the capital city of Kenya, is a prime location for the study given its

diversity and long history with tribalism.

The reason for selecting the ‘youth’ is the massive Youth Bulge in Kenya. Mortality rates are decreasing while fertility rates remain low and the youth now have the most power to drive the country economically and politically (Urdal & Hoelscher, 2009) Youth bulges are often associated with political violence (Urdal, 2006 and Barakat & Urdal, 2009) and in a country like Kenya, the violence can be stirred through ethnic rivalries as they have in the past and might continue to in the future.

The results from studies such as this can highlight and give evidence of any ethnic mistrust amongst young people where politicians and young people themselves, deny them to be present.

The rest of the paper is structured as follows: Background, Literature Review, Method of the Trust Game, Data, Empirical Approach, Results, Discussion & Limitations and Concluding Remarks.

Background

Kenya is a unique and interesting place to study tribalism

amongst the youth. It is an ethnically diverse country with over 42 tribes, and the capital, Nairobi, is a heterogeneous place with representation from most tribes. Kenya is known for being a loose collection of tribes as opposed to a cohesive nation as Kenyans identify strongly with their tribe before their national identity.

Before Kenya received independence in 1963, British colonial leaders used tribes as a way to divide and conquer the country. By focusing on tribal differences, British soldiers avoided a national uprising for a long time. Kenyan leaders in the newly independent Kenya used ethnicity as a way to acquire wealth and power. At this time, the Kikuyu tribe emerged as the largest, wealthiest and most powerful tribe. Today, over fifty years since independence, political leaders use ethnicity as a way to solidify votes. Driving the tribal agenda allows politicians to consolidate power blocks very easily.

Such tribal politics has led to corruption, inefficient allocation of resources and violence. In the 2007-2008 presidential election, countrywide violence arose when there were discrepancies in the vote. The inability of the electoral committee to explain the fact that there were more votes than there were people, led to unrest within the country and to post-election violence. Before this, Kenya had been a remarkably peaceful country for over 40 years. The violence left over one thousand dead and thousands of people displaced. The International Criminal Court (ICC) is still investigating the case (Nmaju 2009).

The importance of this background is to note several things. The first is that Kenya has been largely a peaceful country and the only thing that has ever made Kenyans turn against each other is related to tribes and ethnicity.

Second, whilst ethnicity was something that could divide people in the past due to language differences and custom differences, ethnicity in Nairobi today should not be a dividing factor. Everyone speaks the same languages, English and Kiswahili, and no customs divide tribes in urban areas such as Nairobi.

The third is that even though Kenya is very ethnically diverse, there are three or four main tribes, which dominate and lead; other tribes tend to align themselves with one of these. Fourth, two of the main suspects of the 2007-8-election violence, tried by the ICC, are the current president and the deputy-president. Before the 2013 election, Kenyans knew that the president and vice president were being tried for the crimes. This did not affect the candidates' electoral campaign. This underlines that ethnic alliances are very strong and can withstand almost any pressure. The voting trend in 2013 still showed that most Kenyans vote for people of their tribe. Nevertheless, the 2007 violence took Kenya by surprise. It was the first real consequence of tribalism and it was the first time Kenya seriously acknowledged that they had a problem. Since then, there have been a lot of efforts to change that with anti-tribalism campaigns in schools, universities and in the workplace. Being favorable towards your own ethnic group now has negative connotations, and the youth

are being called the 'light' of Kenya as it is assumed that they do not discriminate and that tribalism exists only within party politics.

My study consists of six large tribes: the Kikuyu, the Luhya, the Luo, the Kisii, the Kamba and the Nubians. The Kikuyu and the Luo are the most politically significant in this study but the others included tribes are important 'swing tribes' politically. Political rivalries have been easy to understand as they can easily be analyzed through voting patterns and campaigns. Economic and social biases are less clear, especially amongst young, urban poor people working in informal sectors. The trust game should be able to pick up some information on socio-economic preferences, namely trust with money, amongst young urban poor residents of Nairobi.

Literature review

Significant research on trust and ethnicity exists and the effects of ethnic mistrust in Kenya and all over the world.

While the effects of mistrust have been largely seen to be of political cause and consequence, there are various effects of mistrust on social capital and the economy. Robinson (2014) finds that low levels of interethnic trust leads to low levels of economic development. Robinson finds that national identity versus ethnic identity is a key predictor for how well an economy trades and how well the economy grows. Bjornskny & Meon (2013) similarly find evidence that mistrust leads to lower education levels and bureaucracy within institutions. Odera (2014) further emphasizes the importance

of trust in urban poor communities. He makes a compelling case for trust as an institution in informal settings where formal institutions do not exist, finding a causal relationship between trust and socio-economic development. Such findings have been supported by multiple studies (Macharia 1988; McEvily et al. 2012; and Pollitt 2002). Korczynski (2000) finds that inter-ethnic trust in diverse communities increases efficiency in use of factors of production but must that communities require significant periods of time for this trust to germinate.

Trust and ethnicity can be measured in different ways. The General Social Survey (Davis & Smith, 1991) has been used in several studies to measure trust (Fershtman & Gneezy 2001; Sullivan & Transue, 1999; and Gachter et al. 2004). Other studies that focus on survey based methods to measure trust frequently find that trust and biases are not always indicative of actual behavior (Sapienza et al. 2013; Etang et al. 2008; and Capra et al. 2008). Behavioral studies have thus gained popularity for their ability to capture true behavioral actions.

Behavioral methods include the Implicit Association Test (IAT)—a test designed to determine the extent of a person's automatic association between mental "representations of objects in memory" (Hofmann et al. 2005). Several studies have shown that the Implicit Association Test is not always effective in determining true prejudices or behavioral attitudes among people (McConnel & Leibold 2001; Brendl et al. 2001; and Karpinski & Hilton 2001). These

studies have typically evaluated relationships of race and ethnicity. Other games such as the dictator game and the public goods game, which are used to reveal preferences and biases, have been more effective in depicting actual behavioral trust (Jakiela et al. 2010; Greig & Bohnet 2008; and Miguel et al. 2015).

The trust game (Berg et al. 1995) has been identified as a useful and accurate portrayal of trust in many different settings (Johnson & Mislin, 2011). Variations of the game have taken into account other factors affecting motives in the trust game, and whilst papers find effects such as altruism and social risk to be factors, trust is the prevailing motive (Johnson and Mislin 2011; Brulhart & Usunier 2012; Fairley et al. 2012; and Chaudhuri & Gangadharan, 2003).

In the context of the youth and the trust game, several studies analyzed how young people trust. Sutter & Kocher (2003) find that trust increases continuously between childhood and early adulthood but stays constant after that. Ngarachu (2015) conducts a qualitative study that tries to understand political and ethnic attitudes in children between the ages of 14-17 in Kenya. Ngarachu finds evidence for ethnic biases even though the children have no strong understanding of their own ethnic histories and backgrounds.

There is little evidence on the trust game on ethnic mistrust in the urban poor areas of Nairobi. Kibera, the slum in which I conduct our study, has over one million people and runs on a largely informal economy. Several studies analyzing trust have either been qualitative (Macharia, 1988) or have focused

more on gendered trust than ethnic trust (Greig & Bohnet 2009 and Jakiela et al. 2010).

Miguel et al. (2015) conducted a study most similar to mine. Carried out in the same location and with extensive behavioral exercises, the authors test for ethnic biases amongst Kenyans living in Kibera slum. The study was conducted through the same behavioral economics lab that I carried out my experiment, Busara Behavioral Economics Lab. While they do not play the trust game, they play several other games including the dictator game and the implicit association test and find no evidence for ethnic biases amongst Kenyans on a social level. They suggest that tribalism may be prevalent only politically. I will keep this study as a point of reference for discussion of my results.

Trust game and model

The behavioral game was based on the 'Trust Game' by Berg (1995), which tests how much two people trust each other in a two-person game. I used only stage one of the trust game, which is described briefly as:

Player A is entrusted with an amount of money (in this case, 100 Kenya Shillings). He or she chooses an amount of their endowment to send to Player B. This amount is multiplied by 3. When Player B receives the amount, he or she also decides how much to send back to Player A. This amount is not multiplied. The amount that Player A sends to Player B is seen as the level of trust Player A has in Player B to return a fair, and hopefully, higher

amount than he or she originally had. If Player A sends 100 Kenya shillings, Player B will receive 300 Kenya shillings and have the option to send back half – 150 Kenya shillings, to Player A. This would be an example of full trust.

In my version, Player A does not play with a live Player B. Instead, Player A received a profile of Player B, which included basic information such as gender, age, education level and the name of a real person. The key point of the profiles is that each name explicitly reveals a persons ethnicity without mentioning ethnicity or tribe. This is similar to Fershtman and Gneezy's (2001) adaptation. I ensured that all information was the same across the profiles save for the name (and therefore ethnicity) of the Player B in the profile.

I conducted two rounds of the game. Round 1 was a hypothetical round with no real stakes and no actual money. Participants were asked how much they would transfer to an anonymous Player B. The interviewer then explained the consequences of his or her decision.

In the second round, real stakes were introduced. I increased the initial endowment from the hypothetical round and showed participants a profile of player B. I explained that there was the opportunity to make real money.

Here, I will walk through the steps of the game, as described by Berg (1995): Let us call the amount of money sent from Player A to B, M_a . The amount received by Player B is then $3M_a$. The amount that Player B will choose to return is denoted as $K_b(3M_a)$.

Player A's needs to choose M_a in the set of integers $S \{0, 1, \dots, 100\}$. Player B needs to choose the strategy $K_b: \{0, 3\dots300\} \in \{0, 1, \dots, 300\}$ which satisfies the inequality:

$$0 \leq K_b(3M_a) \leq 3M_a$$

The pay off is then:

$$P_a(M_a, K_b) = 10 - M_a + K_b(3M_a)$$

and

$$P_b(M_a, K_b) = 3M_a - K_b(3M_a)$$

If Player B's strategy is to maximize their own wealth then they will keep all the money that they receive, $K_b(3M_a) = 0$. If Player A can infer this, then Player A will send nothing such that $M_a = 0$.

The best option for Player A, assuming full trust, is for Player A to send all his or her money to Player B, anticipating that Player B would split the money and return 150 Kenya Shillings.

This suggests that at full trust $M_a = 100$ and when there is no trust at all $M_a = 0$. Therefore $M_a > 0$ means that there is some degree of trust on the part of Player A. If $K_b(3M_a) > M_a$ then Player B is said to reciprocate the trust. A risk averse person would maximize their own utility:

$$u^1(10 - M_a, 100 + 3M_a)$$

such that $M_a = 0$ and therefore have the expected outcome (100,0).

For the purposes of this study, I will look only at Player A's transfer. I expect that since Player A can infer the tribe of Player B, and since profiles on Player Bs are similar in all ways save for ethnicity, any differences in transfer amount between co-ethnics and non co-

ethnics will be due to trust, or a lack thereof.

Data

I had 212 participants in my study residing in Kibera, an urban slum in Nairobi, Kenya. Our selection of participants came from a database of willing participants collected by the Busara Behavioral Economics Research Center. The center, located nearby Kibera, has over 10,000 contacts of people willing to participate in behavioral studies. The research was done in the field as opposed to the lab. This means that instead of calling in participants to the center to conduct the study, field officers went to Kibera to interview randomly selected participants. This research was carried out in January and February of 2016.

All participants were between 18-30 years old with the average age being 25 years old. I had a sample of roughly 49% male and 51% female. Other recorded characteristics were ethnicity, marital status, number of children and education level.

I collected information on six major tribes: The Kikuyu, Luo, Luhya, Kisii, Kamba and Nubians. A large and political tribe, the Kalenjin, were not included in the sample because there are not many of them residing in Kibera. I grouped tribes into politically affiliated groups such that the Kikuyu, Kisii and Nubians were Group A and the Luo, Luhya and Kamba were group B. In our sample of 212, half were given profiles of Player Bs that were the same tribe as them. The other half received profiles of Player Bs from different tribes. Specifically, the non

co-ethnic pairs had a Player B from the opposing politically affiliated tribal group. I dropped two observations that had errors making for a total of 210 observations.

Six different players made up the six profiles for Player Bs. They did not play while I conducted the interviews with Player As. I interviewed the Player Bs before the study actually began to determine their responses to each possible outcome from a Player A. The profiles included name, age, and gender and education level. Besides name, all the information across the profiles was the same. The names were also very clear and common names that would easily tell someone what tribe one was from. Player Bs were not randomly selected. They also do not reside in Kibera. Because they had no stakes in the game and I was not analyzing their responses, I simply picked six people whose names were appropriate and asked them how much they would return to a player if they received each amount. All chose to return the equitable amount for each amount sent; this being an amount that Player A would see as totally fair and equal.

Finally, there was an ex-post survey that collected attitudes on politics, money and ethnicity. I asked survey questions that would allow us to come up with three indexes: a political index, an ethnicity index and a risk index.

The political index would tell us how politically involved and politically interested participants were. I kept two versions of these indexes. POLITICAL indicated high involvement. POLITICAL₁ indicated high interest in politics. I asked

several questions on how much people cared and understood about politics and grouped those who said that they were already very involved or keen to get involved in politics as high involvement candidates (POLITICAL1) and those who said that they cared a lot about politics but had no interest in getting involved as high political interest participants (POLITICAL2).

The second type of index was the risk index, which assessed people's attitudes towards money and asked questions to shed light on their level of risk-aversion. People who claimed to be risky were given the dummy variable RISK. The research included questions about what people intended to do with their money from the study and hypotheticals on risky money situations, such as lotteries.

Lastly, I generated a dummy variable called BIAS that was determined by a set of survey questions adapted from the General Social Survey (GSS). I asked questions that inquired about opinions on people from other tribes such as whether people from certain tribes were untrustworthy or selfish. People who admitted to taking ethnicity into account when playing the game were given a 1 on the dummy variable, BIAS.

Given all this information, the main variable in question is the amount transferred from Player A to Player B (Round 2), between co-ethnics and non co-ethnics. I also compare the amount transferred in the second round to the amount that they stated they would transfer in the first round, where the game was hypothetical and included no profile of player B.

It should be noted that all aspects of the game were carried out in Swahili or English, the national languages. See Table 1 for a table of game play and demographic statistics and see the Appendix for all survey questions and instructions for the game.

Empirical Approach

The big question is whether the transfer amount differed between co-ethnics and non co-ethnics. I carried out the following regression:

$$(1) \text{Tr2} = \alpha_1 + \beta_1 \text{COETHNIC} + \chi + \varepsilon_1$$

Where Tr2 is equal to the transfer amount, COETHNIC is a dummy variable, that equals 1 if Player A and Player B are from the same tribe and 0 if not and χ is a vector of other demographic characteristics.

I then carried out several regressions in the same format but interchanged the COETHNIC variable with other independent variables; namely age, gender, employment status, marital status, number of children and education level. For age, I created two groups to separate our observations. I separated respondents into two categories, YOUNG and OLD where young participants were under the age of 26 and older participants were between 26 and 30 years old. I did another round where young participants were 23 and below and older participants were between 24 and 30 years old. For the number of children I first tested if having children at all had any effect on transfer amount and then tested to see if having more than two children

had an effect. For education level, I tested whether going to college had an effect on transfer level given that the base control education level was some level of high school. I also tested whether people who had not gone to high school had any difference in transfer amount. For marital status, gender and employment status I created dummy variables for single or not single, male or female and employed or unemployed.

I then created indexes to test whether respondents were ethnically biased, Political and/or Risk averse. In our ex-post survey I asked several questions to create indexes for these three categories. The regression was as follows:

$$(2) \text{Tr2} = \alpha_2 + \beta_2 \text{INDEX} + \chi + \epsilon_2$$

Where INDEX is a dummy variable representing, POLITICAL, POLITICAL1, RISK or BIAS respectively. POLITICAL1 is a dummy variable that indicates whether a participant is politically involved. POLITICAL1 is a dummy equal to 1 if the participant is interested in politics. RISK is equal to 1 if the contestant claimed to be risky. BIAS is the final dummy variable, which is equal to 1 if the respondent admitted to taking ethnicity into account when playing the game.

I then ran a series of regressions, which included the interaction of COETHNIC with each of the indexes: POLITICAL, POLITICAL1, RISK or BIAS. This allowed me to see if being political, risky or ethnically bias magnified or reduced the effect of being paired with a co-ethnic player B.

$$(3) \text{Tr2} = \alpha_3 + \beta_3 \text{COETHNIC} + \delta_3 \text{INDEX} + \gamma_3 \text{COETHNIC} * \text{INDEX} + \chi + \epsilon_3$$

Where INDEX is equal to POLITICAL, POLITICAL1, RISK or BIAS in four different regressions. I carry out an F-test to test whether COETHNIC, the INDEX and the interaction term are jointly significant.

The next test was to see whether the chances of decreasing or increasing the amount sent between the first and second differed between paired co-ethnics and non co-ethnics:

$$(4) \text{DECREASE} = \alpha_4 + \beta_4 \text{COETHNIC} + \epsilon_4$$

Where DECREASE is a dummy variable that indicates whether the percentage transfer amount decreased between the first and second transfer. The first transfer was a hypothetical, double blind transfer, whereas the second transfer was real and included the profile of Player B. The result should show whether players changed their strategy after knowing the ethnicity of the player B.

I carried out the above regression with all the other variables discussed above: age, gender, children, marital status, education level, employment level, the ethnicity index, the political indexes and the risk index.

Table 1 and figure 1 show the average amount transferred to co-ethnics and non co-ethnics for each tribe. Because of the sample size of the data, this was the most effective

way to gauge any potential biases between tribes.

I did not have sufficient data to test the amount transferred between specific pairs of tribes. More so, I did not have sufficient data to calculate transfer amount by political party affiliation. I will talk about these factors more in the results section.

Results

Ethnicity and other variables on actual transfer amount (transfer_2):

I found strong statistical significance that co-ethnics transferred more than non co-ethnics. Co-ethnics transferred 9.065 more shillings on average than non co-ethnics, after controlling for demographic characteristics. This result is significant at the 1% level.

Further, I tested to see whether being from a specific tribe had any impact on transfer amount but found no statistical significance. Table 1 shows the mean transfer amount between co-ethnics and non co-ethnics for each tribe. Kisii and Kikuyu had the biggest transfer difference between co-ethnics and non co-ethnics. (See Table 2, column 1)

I found no statistical significance between amount transferred and the following variables: age, sex, education level, marital status and the number of children. I found that women transfer slightly less than men on average but the findings were not significant.

Who transfers 0 and who transfers 100?

The results show that co-ethnics are 4.79% more likely to transfer the whole endowment (full trust) than non co-ethnics (significant at the 10% level). I found that co-ethnics are 6.38% less likely to transfer 0 than are non co-ethnics; however this result was not statistically significant at the 10% level, likely because my sample size was not large enough. I also found slight significance for the effect of having children on choosing to transfer zero. (See Table 2, column 2 and 3)

Transfer 1 vs. Transfer 2:

I then tested to see how the percentage transferred changed between when participants had no profile of the player B and no real stake and when they did. I created two variables, INCREASE and DECREASE. INCREASE was a dummy variable that was 1 if the percentage of the endowment sent increased between the hypothetical round and the real round. DECREASE was the opposite. I found strong evidence that players decreased the amount sent if they saw that player B was from a different tribe. Participants were 25.5% less likely to decrease the amount sent in round 2 if player B was a co-ethnic than if player B was from a different tribe. Participants were 10.5% more likely to increase the amount sent in round 2 if player B was from the same tribe than if player B was non co-ethnic. This coefficient was significant at the 10% level. This suggests that mistrust is

more important than in-group preferences. (See Table 2, column 4 and 5)

Ethnicity Index:

I found no results for transfer amount given the ethnicity index, as I could not create a strong index for an ethnic bias. The main reason for this was that almost all players indicated that they were not at all ethnically biased, trusted people from other tribes, and more importantly, said that they did not take ethnicity into account when making their decision. Almost all agreed, however, that tribalism is still a problem in the country. The discrepancy between results from the survey and the results of the game show that people's beliefs and behaviors are not consistent.

Risk Index:

I found no significant results in this case either. One of the main problems again was that participants' actions were different from their beliefs. When asked if one was risky, they often stated "somewhat" to "yes". However, very few indicated interest in playing in the lottery or saving the money that they had spent. For that reason, the RISK index did not truly indicate whether one was risky or risk averse.

The Political Index:

I found no statistical significance on transfer amount given whether one was politically interested. However, I did find that political involvement (POLITICAL) resulted in more bias transfers. The interaction effect of

being politically involved and co-ethnic was very significant. The F-test showed that political involvement, co-ethnic and the interaction effect were jointly significant at the 1% level. Being politically involved increase the effect of co-ethnic on the transfer amount by 17.82 shillings. (See Table 3)

Transfer amount by Political Party:

I could not run any data on transfer amount by political party fairly. The question that asked which political party you supported was optional and only a handful of participants chose to answer. Most surprising was how few Kikuyu's chose to state that they were supporters of Jubilee and how many Luo's chose to state that they were supporters of Orange Democratic Party (ODM). Jubilee, the current governing party, is lead by the Kikuyu whilst the opposition party, ODM, is lead by the Luo.

Discussion

The findings provide significant evidence for ethnic mistrust amongst the urban poor youth in Kenya. The results show that even though young people are aware of tribalism and its prevalence in the country, few are aware of their own biases.

Another interesting finding is that people send less to people of other tribes. I found some evidence for extra altruism or trust toward people of the same tribe but stronger evidence of mistrust for non co-ethnics. I did not have enough data to analyze specific transfers between tribes but the large effect of mistrust

may have been due to the fact that I had opposing political tribal groups. It is unlikely that this is the effect across all groups. From the limited data I had, I saw that the Kisii and Kikuyu have the biggest difference in transfer between co-ethnics and non co-ethnics. The Luo on average transferred more to non co-ethnics but the difference was small and not significant.

Political involvement makes one more likely to be even less trustworthy of people from other tribes. This is an unsurprising finding given Kenya's political environment. It was interesting that the political effect was so large, even though it was not close to an election round. The fact that more than half of players were unwilling to state their political affiliation is demonstrative of the sensitivity of tribal politics.

The fact that ethnicity was the only variant between Player Bs and no other demographic characteristic had any effect on the transfer amount makes this a strong case for the prevalence of ethnic mistrust in Kenya. It is unlikely that there are any other unobserved variables as there is little income variation across inhabitants of Kibera and I used an effective randomization strategy.

Comparison with "How strong are ethnic preferences?" (Miguel et al. 2015):

The findings in this paper are contradictory from theirs, despite having a very similar format and conducting our study in the same area and with the same research center.

Whilst the Miguel et al. (2015) subjects did not play the Trust Game

and the authors were looking for biases through other games, if their findings were sound, I should not have found evidence as strong as I did.

Their paper was far more extensive and included a much larger sample than mine (1300 participants). They were able to capture many more effects and attitudes than mine. They found no evidence for mistrust or ethnic biases amongst participants and conclude that there is no ethnic bias amongst ordinary Kenyans. My results should not have been so contradictory to theirs given that we are testing for the same sentiments. I list below specific differences between our methods that might have affected our results:

Name vs. Hometown – In my study, I used obvious tribal names in fact based profiles to imply tribe without being explicit about it. Miguel et al.'s study used hometowns embedded in sentences such as: "John from Kisumu who is 21 years old and works as an engineer" – where Kisumu is a place meant to imply that "John" is from the Luo tribe. The extraneous information is meant to detract from the hometown, Kisumu, but I think the hometown information makes it obvious for the participants that ethnicity is a factor. The sentence format might also make the game seem more hypothetical than my fact based and simple profile format.

Single round vs. multiple round – I played only one round of a game and it took only a few minutes to play; thus making decisions was more instinctual. In

the other paper, there were multiple games and multiple rounds, which may have given participants enough time to think through what was being tested. One of the games (Dictator Game) also required participants to play two rounds. In the first round they played with a co-ethnic and in the second they played with non co-ethnic. I suspect this might have been too obvious for the player and given that nobody wants to appear biased they would try to present themselves as not so.

In Lab vs. In Field – The study by Miguel was carried out in the Busara lab in Nairobi, not far from Kibera. They played each game on a computer. Our study was carried out in field. Field officers went to Kibera participants. Participants did not have to fill out any forms. The field officers simply asked and recorded the answers for them. There may be unobserved characteristic differences between participants in my study and those in Miguel’s study. People who chose to spend the day at the lab may have different preferences, outlooks, education levels and opinions than those that don’t as in my study. I would assume that people who took themselves to the lab are anticipating being tested for something whereas people who are interviewed in their own surroundings for a brief period of time are more likely to display behavior more closely linked with their actual behavior.

Time Periods – I conducted my study in January of 2016 while the Miguel et al. study happened in two rounds between 2012 and 2013, with 2013 considered as the ‘election

year’. In the election year they found that transfers to non co-ethnics fell but the result was not significant. I found significant results, and even more significant political results, in a non-election year. The fact that I conducted my study almost three years later might be reflective of some change in the country. I cannot hypothesize what that change would be – especially what change would make tribal mistrust escalate instead of lessening.

These are only a few of the possible reasons that our papers differed. The two studies should have essentially found the same result since the demographics are largely similar and both studies play games to test for biases. Even though participants were unwilling to admit that they themselves had tribal prejudices, almost all admitted that tribalism was a problem in the country. Formatting of the game and the environment of the game are clearly influential in the outcome of the studies.

Policy Implications

Unlike generations ago where distinct differences were drawn between tribes, today there are no significant differences between people from different tribes except the word or name of their ethnic group. In a diverse place like Nairobi, there are no language barriers or custom barriers between people of different tribes. Political leaders who use tribalism are preying on a misinformed demographic by creating divides and mistrust where there should be none. One extreme solution might be to ban tribes as a

whole nationwide. This is a difficult and maybe unrealistic goal in less heterogeneous regions, but in the long run, it would avoid a divided community. Tribal driven political campaigns could and should be banned as well since they are primarily based on misleading people to believe that there are reasons to mistrust members of other tribes. Tribal politics also avoids debates on the actual pressing issues in the country. Political leaders all carry the same agenda and there is little difference in their beliefs and policy choices, mainly because those factors are not the main agenda of their campaigns.

Probably the most important outcome of this research is that whilst tribalism exists and everyone is aware that it does, people are not willing to admit that they have prejudices. People may well be unaware of their own biases. Education is the most powerful tool in fixing this problem. Showing people studies such as this would make people question their own beliefs and actions more provokingly.

Thoughts from the Governor

I was lucky enough to secure a meeting with the Governor of Nairobi, Dr. Evans Kidero, after analyzing the results of the study. After presenting him with the data, he said that he was not surprised at the results but surprised that I was able to capture the actual effects of mistrust in a small study such as this. He was interested in the idea that people do not behave as they think or say that they do and noted that the finding was important for future

policy plans. When asked about his stance and thoughts on how to move forward, he said:

In the public sector, the politics of ethnicity distorts objectivity and meritocracy, leaving large segments of the population underserved, and leaving those youth disillusioned, desperate and angry.

As a first step we need to ensure that Nairobi's leadership reflects the face of the country.

Second, the government must demonstrate that inclusivity.

Nairobi County government has committed to allocate 30% of all tenders, to youth, women and the disabled and to provide them with soft loans to enable them to start businesses and to contract out certain services to them. As a County Government we must put measures in place to ensure equitable distribution of these resources, jobs and funding among all of the ethnic groups represented in Nairobi.

Empowerment of the youth reveals itself to be a key tool to eradicate misleading tribal politics, since empowered people cannot be taken advantage of as happens currently with a very unempowered youth group. Fair and equal allocation of all factors of production will empower a generation to make better decisions about whom they vote for and whom they trust.

Limitations

Besides the limitation of limited data, there may have been

other limitations within the study. Conducting the study over several different days could have resulted in communication between participants. However, I tested for transfer variance depending on the testing date and found no significant changes. I also did not include the Kalenjin who are a very large and political tribe in Kenya. Whilst I think the inclusion of the Kalenjin, would only have pronounced the findings, it's impossible to tell the exact effect that it would have had.

There is room for improvement in the study. The sample size could have been larger to allow for analysis of interactions between specific tribes. More participants would also let me look at the gender effect versus the ethnic effect. I could not analyze information such as whether women trust women of any tribe more than men of their own tribe.

Conducting the study in Kibera limits my findings to a very specific income bracket and demographic. Even though residents of Kibera make up roughly half of the population of Nairobi, results may differ between different income groups and different parts of Nairobi.

Finally, I could have extended the ex-post survey to include more indicators to determine ideas like stereotypes, other investment decisions and participants' social networks.

Concluding remarks

I find strong evidence for mistrust between non co-ethnics amongst young people living in the Kibera slum of Nairobi. People transfer less

to those of different tribes and people are more likely to transfer their full endowment to those of the same tribe. More so, I saw large drops in the amount transferred between blind and non-blind rounds when the participant saw that their partner was of a different tribe; whereas, the transfer amount stayed the same if the partner was revealed to be of the same tribe.

Unsurprisingly, people who were politically involved were more likely to be ethnically biased. These behavioral findings did not correlate with my survey findings in which participants said that they trusted people of all tribes and said that they did not take ethnicity into consideration when making their decisions. The study is yet another example of how behaviors and attitudes are not always the same, illustrating the power and importance of behavioral and experimental economics as a field. The differences between my findings and the findings of Miguel et al. (2015), however, are reflective of the fact that behavioral studies can vary greatly depending on the environment of the study and that careful consideration must be taken to the environment before conclusions can be drawn.

My results themselves have consequences that should be made known to the participants and the country as a whole. The study shows that tribalism still persists amongst the youth who have grown up in an independent Kenya that pledges itself to be a non-tribal country. Ignoring or denying underlying stereotypes and mistrust based on ethnicity allows such to prevail and hurts the true economic capacity of

the country. Full political democracy and capitalism cannot be achieved if ethnic mistrust segregates the population. Tribalism and racism is not specific to Kenya and other examples from around the world have shown that it can take years for such prejudices to be and overcome. The United States still suffers with racism, South Africa still battles with the effects of Apartheid and Rwanda has had to ban any mention of tribe after the genocide. It's unsurprising that Kenya still suffers with tribalism given the large role that tribal politics has played since Kenya's independence only fifty-two years ago. However, denial and inconsistent efforts to address the struggle will only prolong the healing period and detract from economic growth. The manipulative tactic of ethnic politics ensures a few people power but denies an entire generation the ability to reach it's true potential politically, socially and economically. The more people understand this, the harder it will be for politicians to divide an ambitious generation based on ethnicity and the more true will become the statement that the youth are the 'light' of Kenya.

TABLE 1: Descriptive Statistics on Sample and Average Game Play

	Percent of endowment sent		Percent of Politically Interested	Percent of Politically Involved	Percent of Risky	Percent of Bias
	Co-ethnic	Non Co-ethnic				
<i>Demographics</i>						
Full Sample ¹	39.1	30.4	16.67	15.24	20.48	6.67
Female(53.33%)	36.4	28.6	48.57	56.25	13.39	64.29
Male (46.67%)	42.6	32.2	51.43	43.75	86.61	35.71
<i>Age (mean = 25.9)</i>						
Below Median	40.3	32.4	48.57	37.5	24.24	42.86
Median or above	37.8	30	51.43	62.5	75.76	57.14
Single (57.14%)	39	29.1	62.86	50	84.44	50
Not Single (42.86%)	38	32	37.14	50	15.56	50
<i>Education (mean = 12)</i>						
Below Median	39.4	32.1	34.29	37.5	11.11	50
Median or above	40	29.3	65.71	62.5	88.89	50
<i>Children (Mean = 1.2)</i>						
Below Median	41.3	27.7	37.14	21.88	84.4	57.14
Median or above	37.8	31.5	62.86	78.12	15.6	42.86
Employed (45.24%)	41.4	30.1	57.14	53.12	83.48	64.29
Unemployed (54.76%)	37.7	30	42.86	46.88	16.52	35.71
<i>Ethnicity</i>						
Kikuyu (14.76%)	43.7	30	11.43	9.38	13.95	14.29
Luo (14.29%)	30	31	14.29	12.5	16.28	7.14
Luhya (16.19%)	32	25	17.14	15.62	4.65	21.43
Kisii (16.67%)	51	30	22.86	28.12	27.91	21.43
Kamba (17.14%)	41.1	32.3	20	15.62	18.6	7.14
Nubian (20%)	39	32.9	14.29	18.75	18.6	28.57
Observations	99	111	35	32	43	14

¹ Full Sample includes 210 observations. Variables beneath show percentage of Full Sample.

TABLE 2: Trust Game Transfers

VARIABLES	(1) TRANSFER_2	(2) ZERO_ TRANSFER	(3) WHOLE_ TRANSFER	(4) INCREASE	(5) DECREASE
Coethnic	9.065*** (3.140)	-0.0638 (0.0429)	0.0479* (0.0255)	0.105* (0.0574)	-0.255*** (0.0695)
College	-0.214 (3.954)	-0.0420 (0.0540)	-0.0138 (0.0321)	0.0334 (0.0722)	-0.0432 (0.0876)
Unemployment	-1.075 (3.321)	0.00170 (0.0454)	0.00220 (0.0269)	0.0310 (0.0607)	0.00962 (0.0736)
Female	-4.082 (3.402)	0.0221 (0.0465)	-0.00685 (0.0276)	-0.0381 (0.0621)	0.0192 (0.0753)
Old	-4.325 (3.443)	0.0495 (0.0471)	-0.0365 (0.0279)	-0.000399 (0.0629)	-0.0901 (0.0763)
Married	2.147 (3.767)	0.0535 (0.0515)	0.0423 (0.0305)	-0.0415 (0.0688)	0.0449 (0.0834)
Children	1.599 (4.157)	-0.111* (0.0568)	-0.0232 (0.0337)	0.0422 (0.0759)	-0.0613 (0.0921)
Kisii	-1.087 (16.42)	0.0355 (0.224)	0.0373 (0.133)	-0.341 (0.300)	0.0767 (0.364)
Kikuyu	-4.729 (16.49)	0.142 (0.225)	-0.0135 (0.134)	-0.293 (0.301)	-0.0554 (0.365)
Luo	-10.30 (16.49)	0.102 (0.225)	-0.0460 (0.134)	-0.317 (0.301)	0.194 (0.365)
Luhya	-11.98 (16.44)	0.129 (0.225)	-0.0488 (0.133)	-0.366 (0.300)	0.174 (0.364)
Kamba	-5.480 (16.46)	0.154 (0.225)	0.00308 (0.133)	-0.406 (0.301)	0.0415 (0.365)
Nubian	-6.471 (16.40)	0.0974 (0.224)	-0.0208 (0.133)	-0.172 (0.300)	-0.0555 (0.363)
Constant	39.88** (16.84)	0.0435 (0.230)	0.0467 (0.137)	0.450 (0.308)	0.631* (0.373)
Observations	210	210	210	210	210
R-squared	0.084	0.049	0.065	0.061	0.101

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

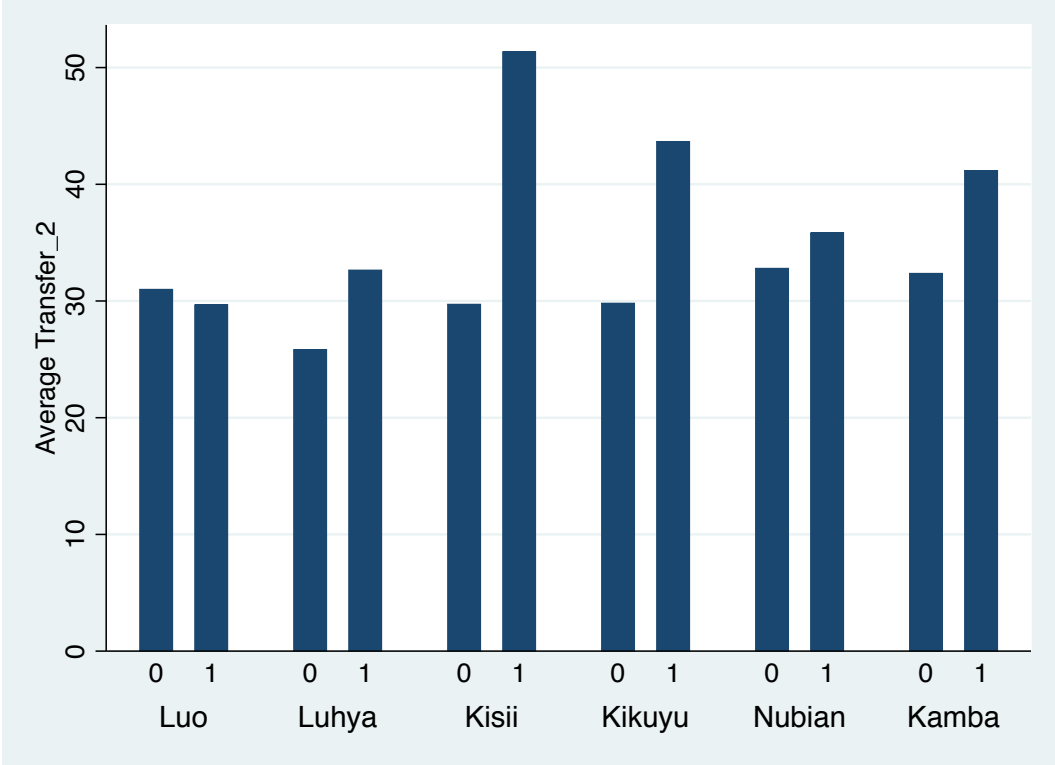
TABLE 3: Trust game transfers with political involvement interaction effect

VARIABLES	(1) Transfer_2
Coethnic	6.014* (3.416)
Political	-6.000 (5.652)
coethnicpolitical	17.82** (8.368)
Unemployed	-0.202 (3.326)
Female	-4.360 (3.369)
Old	-4.172 (3.394)
Married	2.498 (3.739)
Children	0.915 (4.088)
Kisii	0.0861 (16.26)
Kikuyu	-4.419 (16.28)
Luo	-8.730 (16.32)
Luhya	-10.09 (16.26)
Kamba	-3.529 (16.25)
Nubian	-4.893 (16.20)
Constant	39.39** (16.44)
<i>F statistic</i>	6.76
Observations	210
R-squared	0.106

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

FIGURE 1: Average transfer amount between tribes to co-ethnics and non co-ethnics



Note: 0 is a transfer to a non co-ethnic and 1 is a transfer to a co-ethnic.

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APPENDIX

Survey:

Please fill out this basic information survey before we begin:

Participant Number:

Age:

Sex:

Tribe:

Original hometown:

Highest level of education:

Employment status:

Marital status:

Children:

The game:

Welcome to this behavioral game on investment decision-making.

You will be assigned number as your identity. This number is random and private. All your decisions and answers will be anonymous.

We will start off by asking you a hypothetical question. There is a game that is played whereby a player, A, receives an initial endowment of money. He or She has the option to transfer a certain amount of money to a player B. Whatever he or she sends will be tripled. Player B will then have the option to send you back a certain amount of that amount received. The amount returned will not be tripled.

For example: if you give Player B 50 Kenya shillings, he or she will receive 150 Shillings. Your respective endowments will then be 50 and 100 shillings. Player B can return any amount back to you. Player B may return 50 shillings back so that you end up with equal amounts of 100ksh. If you sent 0, player B will receive nothing and have no decision to make. If you sent 100ksh then Player B will receive 300 Kenya shillings and can decide how much to return to you.

Practice Round 1:

In this round, there is no potential to win actual money. The question is hypothetical. Without knowing anything about your partner, if you received an endowment of 80 Kenya Shillings, how much would you transfer to player B?

(For interviewer: explain the consequences of her decision)

Round 2:

In this round, you will have the opportunity to make some money in this game. Any money earned will be paid in cash, privately.

You will be playing the role of Player A. Your partner is Player B. Note that player B will not get any information on you.

(For interviewer: present participant with Profile of player B)

You can send none of your endowment, all of your endowment or any amount in between to Player B. Whatever amount you send to Player B will be tripled. Player B will then have the option to return an amount back to you. Whatever he or she returns is not multiplied.

How much will you transfer to the person whose profile you have received?

(For interviewer: please explain the consequences of this decision to double check intentions)

Ex-Post questions:

We are now going to ask you a few more questions:

Money attitude questions:

1. If you received 1000ksh today, would you:

A	Spend it immediate needs for yourself, your family or your friends?	
B	Use it for something recreational	
C	Save it	
4	Use it to try and make more money	

2. Is there anyone in your life that you trust enough to lend the money you have just received?

No	
Not right now	
Yes	

3. Would you give up the amount you have received for a lottery ticket that could win you up to 10,000 Kenya Shillings if the chances were 10%?

Yes	
No	

4. Do you see yourself as a person who likes to take risks or not when it comes to money and investments? Answer on a scale from 1-5:

1	I never take any risks	
2	Very few risks	
3	I can take small	
4	I take a lot of risks	
5	I always take big risks	

Political attitude questions:

1. On a scale of 1-5, how much do you care about politics?

1	Not at all	
2	Very Little	
3	Somewhat	
4	I care a lot	
5	It's one of the most important things to me.	

2. On a scale of 1-5, how much do you wish to get involved in politics?

1	Not at all	
2	I'm not sure	
3	I want to get involved	
4	I am already somewhat involved	
5	I am already very involved	

2. Do you identify with a particular political party? If so, which? You may choose not to answer which one.

Yes	
No	

Ethnicity attitude questions:

1. Do you believe that tribalism is a problem that you have to deal with?

No	
I don't know	
Maybe	
Yes	

2. Do you think that someone from **insert tribe of player B** would try to take advantage of you if they got a chance or would they be fair?

No	
Depends on the tribe	
I don't know	
Yes	

3. Would you say that most of the time someone from **insert tribe of player B** would try to be helpful or that they are mostly looking out for themselves?

No	
Depends on the tribe	
I don't know	
Yes	

4. When you transferred money to Player B, did you take into consideration his or her tribe before you made your decision?

Yes	
No	

Profile Format of Player B

Here is some information on the person you will be playing against. He or she has no information on you. After you have given us the amount you will transfer, your Player B will be consulted and determine how much to send back to you.

Player B

Name*

Age Range: 18-25

Education level: Completed High School

Sex: Female

Employment Status: Employed

Marital Status: Single

*The names of the six participants that made up the profile are withheld.

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