Social Norms in the Aftermath of Ethnic Violence: Ethnicity and Fairness in Non-Costly Decision Making

ONLINE SUPPLEMENTARY APPENDIX

This Appendix includes: Page

Attachment 1: Experimental Instructions

BEFORE THE SESSION

1. *Local Administrator and Assistant rehearse the script, and prepare the session room. There must be sufficient space to accommodate participants and to assure that each participant has enough space to work in comfort and relative privacy. Portable shields will be placed at each designated station so that participants will not be able to see what others are doing once the session begins.*
2. *The Administrator prepares the consent forms.*

CHECK-IN

1. *As participants arrive, they are greeted at the entrance to the session room. They are asked to show their letter of invitation [FORM "LETTER OF INVITATION"] to participate in the session. Because this letter will have been hand delivered by either the administrator him/herself or one of the other local interviewers with Mareco Index Bosnia, someone will be able to guarantee that the person with the letter is, in fact, the person who received the letter. The will use a "SCREENING SURVEY" [FORM "SCREENING SURVEY"] to verify the identity of the person with the letter. Once the person is properly identified, the screening survey form must be destroyed.*
2. *The administrator will then give each respondent a consent form to read. [FORM "LETTER OF CONSENT"] The respondent may then choose to leave, indicating lack of consent. Respondents who stay have consented to participate by agreeing to stay.*
3. *The administrator assigns each respondent who has agreed to stay a unique ID number printed on an index card, and assigns them to a seat with a screening shield. The administrator places the index card with the ID number behind the screen and instructs the participant not to move the card.*

INTRODUCTION.

Welcome. Thank you for coming today. My name is ***. As you know you will receive a payment today for your participation. You also have the opportunity to receive additional money based on the tasks involved in today's activity.

Before we begin there are several rules we would like you to keep in mind:

1. First, you should not talk with one another or look at anyone else's work.
2. Second, please listen to all instructions that I give you. This is very important. If you follow the instructions carefully you might make a considerable sum of money.
3. Third, we will be handing out many different forms to you. Please do not begin filling out or looking at those forms until I ask you to do so.
4. Fourth, you will receive a number of envelopes with money or blank sheets of paper. Please do not open them until I ask you to.
5. Finally, you just received a card with an ID number on it. Please turn it upside down. Do not show that number to anyone else except myself or one of my assistants.

Now, let me tell you a little about this research project. This is an international social science research project, and the questions that you will answer and the tasks you will perform have been administered to participants around the world. The purpose of the project is to understand how people of different cultures and backgrounds make decisions, interact with other people, and how their decisions are affected by the conditions in their local environment. We are going to ask you to make decisions about money. These decisions will involve not only you and but also other people from Bosnia.

I am conducting this research project on behalf of the research institute, Mareco Index Bosnia. Mareco Index Bosnia is the leading institute for survey research in our country and has participated in many international and domestic research projects. In this project, I will serve not only as the administrator of this session, but also as your local contact, in case you ever have questions about the progress of the study or your involvement. Standing over there is "***". He/she is our assistant for this project. He/she will serve as my assistant and will pass out the forms and materials that you will use.

You will participate in two main types of tasks today. You will receive different forms for each task. The first task will be to complete a relative short survey, which uses questions from general international social surveys on public opinion, attitudes, and basic social data. Rest assured that we will not ask you to provide any information that could be used to identify you as a participant in this study. In the second task, you will be asked to make several decisions about how to allocate money. In each of these tasks, you will have to decide how to allocate a sum of money, which we will provide, between yourself and someone else. The other person that you will be working with will not be in this room, but they will be a future participant in this study, and they will be from Bosnia. In these decision-making exercises, the money you allocate to yourself will be yours to keep. Any money that you choose to send to the other person will be placed in an envelope, sealed, and given to them at a future session like this. Today you will also be given envelopes which were sent from other persons in Bosnia. Although they did not know who you were, we provided them with some basic information to inform their decision. At

several points we will ask you to predict what you think how much money these other persons might have given to you. You will not know what that other person has decided. We would like your best guess. This is not a test. We only want to know your opinion.

Do you have any questions?

<If there are questions, refer to the sheet. Most questions will be answered by stating that full instructions will be given later.>

Short Survey

First we would like you to answer a few questions about your background. The assistant will come around to each of you and hand you a survey booklet and a pen. The first thing you will need to do is to copy the ID number on the card you were given to the upper right corner of the front of the survey booklet. Do not open the booklet until I instruct you to do so. We will go through each question together as a group. I will read each question aloud and you will circle the appropriate answer. Please circle only one answer to each question. You may refuse to answer a question if you choose. You may also choose to answer "Don't Know" on many questions. However, we would wish that you provide us with honest and thoughtful answers to every question. If you refuse to answer questions, or simply circle "don't know" every time, then it doesn't tell us very much about how you think and it will hurt the overall quality of our project. Please do not read ahead. Answer only the question that I am reading to you, and be patient if others take more time. If you have questions, please raise your hand, and I will come to you. Please do not say your answers to questions aloud, because it will influence what others think. And you may disagree about the answers to some of the questions. When everyone is finished, the assistant will collect the survey booklets and we will begin the decision-making tasks.

<Assistant hands out the survey booklet [FORM BASIC QUESTIONAIRE]. The Administrator will then read each question and answer aloud as the participants fill out the form. The first question, about SEX/GENDER will serve as a simple example question to familiarize participants with the format of the survey. Once filled out, the assistant collects each one and checks to make certain that the Respondent's ID number is correctly written on the cover page of the survey booklet. If not, he will point it out to them and make them enter it properly. Items are stored in a manila envelope as they are collected. The envelope is marked "BASIC QUESTIONNAIRE," and has the date and a session number written on it.>

Decision Exercises

Decision Exercise #1

We are now ready to begin the decision-making tasks. Your first task is to decide how to allocate a sum of money between yourself and someone else in Bosnia. That person is not physically present in this room today, but they will be participating in a future session. The Assistant is now going to pass out to each of you 2 envelopes and 10 one-mark banknotes. *(1.7 Bosnian Convertible Marks (KM) = 1 US Dollar, so a total of $5.50)* and 10 blank strips of paper of equal size. You will be deciding how to allocate the money and the slips of paper between yourself and another person. To ensure your privacy, we have provided you with a screen on the table and that is a place in which you can do your work. Remember, please keep your decisions private.

The Assistant gives each respondent an envelope marked "KEEP," an envelope marked "SEND," 10 KM, and 10 blank pieces of paper.> The "SEND" Envelope will be labeled with the ethnicity of the recipient.

You will see that there are two envelopes. One is labeled "keep" and the other is labeled "send." I want you to put 10 KM and/or slips of paper in the envelope labeled "keep" and the remaining 10 in the envelope labeled "send." You will keep whatever you put in the "keep" envelope. Whatever is placed in the "send" envelope will be given to another person living in Bosnia. You may allocate the money and slips of paper in any way that you please. Please take a look at your materials.

<pause for a little bit>

Let me give you some examples. Remember, you can do whatever you wish. For example, you could put 10 KM and 0 blank slips of paper in your "keep" envelope. In the "send" envelope you would then put 0 KM and 10 blank slips of blank paper. Or you could decide to put 7 KM in your "keep" envelope, with 3 blank slips of paper. You would then put 3 KM in the "send" envelope, with 7 blank slips of paper. (Repeat for other examples). You can do anything you wish. Just remember that each envelope must have 10 things in it. It may have any combination of bills and paper slips. Also keep in mind that whatever you put in the "send" envelope will be given to someone else in Bosnia

The first thing I want you to do is to write you ID number in the upper right corner of the "send" envelope. Please decide how to allocate the money. When you are done, seal the "send" envelope and the Assistant will come around and pick it up. You may put the "keep" envelope beside you on the table. It is yours to keep. Please begin. If you have any questions, please raise your hand and I will try to answer your question in private. Remember, you are not permitted to talk to one another in this room, because we do not want you to influence each other's decisions. Each person must make their own decision about what to do with the money and slips of paper.

<Wait until everyone is finished. The Assistant picks up the "SEND" envelope from each respondent. While doing so, the Assistant makes certain the subject's ID is in the upper right corner of the envelope. If not, have them do so properly. Once all of the envelopes have been picked up, they should be put into an envelope, labeled Decision1 along with the group number and date.>

Decision Exercise #2

Now we can begin the next task. Now you are going to receive an envelope from someone else in Bosnia who has performed the same task that you just completed. Like you, they knew that the other person would be from Bosnia. They also were aware of the ethnicity of the person as you were. You will keep the contents of the envelope. However, I will ask you NOT to open the envelope until we are finished here today. Please do not open the envelope. If you do, I will ask you to leave.   You can pick up the envelope and look at it. The Assistant will now give you an envelope and a sheet of paper.

<The Assistant gives each respondent two things - an envelope and form D-2. The envelope is labeled "send" just like the envelopes that were picked up in the two earlier decisions. Each envelope should have a large label on it, listing traits of the person who sent it. The envelope will be from some one of the same ethnicity as the subject. There will be a sender number in the upper left corner. This sender number indicates which sender characteristics are listed on the envelope. Form D-2 asks respondent to predict how much is in the envelope.>

Now that you have the materials, I would like you to do three things. First, you need to write your ID number in the upper right corner of the sheet. Second, I would like you to read the information about the other person that is on the envelope you just received. On the sheet of paper you will see similar statements. On that sheet of paper, please circle the characteristics of the other person as they appear on the envelope. Then, I would like you to predict how many KM you think the other person left in the envelope. Just give us your best guess. Please check one box.

Do you have any questions? If so, I will come around and answer them individually. Once you have finished filling out your sheet of paper, it will be collected and you will have to wait until everyone else is ready. You may keep your envelope, but <u>please do not open it</u>.

<The Assistant picks up Form D-2 from each respondent, make certain the ID number is in the upper right corner. The Assistant checks that each respondent circled the correct information on the prediction sheet and checked only one answer in predicting the amount in the envelope. Put the prediction sheets in an envelope D-2 with group number and date.>

Decision Exercise #3

You will again receive two envelopes, 10 KM and 10 blank slips of paper. As in the first task, you will have to decide how to allocate the banknotes and slips of paper between yourself and someone else. It will be your task to decide how to distribute the money and paper between yourself and the other person. That person is not physically present in this room today, but they will be participating in a future session.

<The Assistant hands each respondent one "Keep" envelope and one "Send" envelope, 10 KM, and 10 blank slips of paper. Each "SEND" envelope will have a label indicating the ethnicity of the recipient (Serb, Croat, or Bosniak). Each participant will be given an envelope of a person with a different ethnicity than their own. Which of the remaining to ethnicities they receive will be randomly determined.>

First, please write your ID number in the upper right corner of the "Send" envelope. Now, please be sure to read the label printed on the "Send" envelope. The label tells you more about the person to whom you are sending this envelope. Please make your decision. Remember to put 10 items in each envelope. You may put in any combination of money and blank slips of paper in each one. (Use examples) The "send" envelope will be given to another person in a different region in a future session. The "keep" envelope is yours to keep. When you are done, the "send" envelopes will be collected.

<When everyone is finished, the Assistant picks up the "SEND" envelope. While doing so, the Assistant makes certain that the subject's ID in the upper right corner of the envelope is correct. Once all of the envelopes have been picked up, they should be put in a folder labeled D-3 with group number and date on it.>

Decision Exercise #4 (This is the experiment present in the article)

In the next task you again receive two envelopes, 10 KM, and 10 slips of paper. However, this time you must decide how to distribute the 10 KM and 10 slips of paper between two persons other than yourself. In this task, you will not be permitted to keep any of the 10 KM. Instead, you must decide how to distribute the 10 KM between two other people in Bosnia. We will give these envelopes to the two persons at future sessions.

<The assistant hands each respondent two "Send" envelopes, 10 KM, and 10 blank slips of paper. Each "SEND" envelope will have a label indicating the ethnicity of the recipient (Serb, Croat, or Bosniak), AND the gender of the recipient (Male, Female). This time, the ethnicity and gender on the label of the "send" envelope will be randomly distributed but no one will receive two envelopes of the same ethnicity (serb, serb; croat,croat; etc.)>

First, please write your ID number in the upper right corner of each "Send" envelope. Now, please be sure to read the label printed on each "Send" envelope. The label tells you more about the person to whom you are sending this envelope. Please make your decision. Remember to put

10 items in each envelope. Be sure to look closely at each envelope before making your decision. You may put in any combination of money and blank slips of paper in each one. (Use Examples) Each "send" envelope will be given to a different person at a future session.

<When everyone is finished, the assistant picks up the "SEND" envelopes. While doing so, the assistant makes certain that the subject's ID in the upper right corner of the envelope is correct. Once all of the envelopes have been picked up, they should be put into a folder labeled D-4, with group number and date on it.>

Decision-Making Exercise #5

You will now receive two envelopes. The envelopes are from people who made the same kind of decision that you made in the last task. Like you, they had to choose how to allocate 10 KM and 10 paper slips between two people in Bosnia. They also were aware of the gender and ethnicity of each person as you were. Do not open either of the envelopes. You will be asked to choose one of the envelopes to keep, and to give the other envelope back to the Assistant. Once you have chosen an envelope you will receive a sheet of paper to predict the amount you think is in the envelope you have kept.

<The Assistant passes out the paired envelopes. The envelopes have SEND on them and an ID number in the upper right corner.>

Please choose the envelope that you want to keep. The Assistant will come around with a folder. Please put the envelope you <u>do not</u> <u>want</u> in the folder. Once you have dropped the envelope in the folder, you cannot change your mind.

<The Assistant goes around the room and collects the "discards" and passes out a form D-5.>

Please fill out the sheet. First, please write your ID number in the upper right corner. Second, copy the number from the upper right corner of the envelope you kept into the space marked "Sender". Please check one box predicting the amount of money you think is in the envelope. When you are done the sheet will be collected and you will be able to keep the envelope. Do not open the envelope now. Please put it on your stack. You will be able to open it later.

<The Assistant goes around and collects form D-5. The Assistant checks that the Respondent entered the correct sender number from the envelope onto form D-5. The Assistant makes certain that respondents checked only one answer in making their prediction of the amount in the envelope. The Assistant checks that the Respondent's ID number is written in the upper right corner of D-5. D-5 forms are placed in a folder with group number, date and D-5 on it.>

CONCLUSION

       This concludes our session. I want to thank everyone for your participation. The tasks that you engaged in here are valuable for our research. You are now free to leave. Please take all of the envelopes that have money in them and you can keep the pen that you were given. You can open the envelopes once you leave. Please open them in private. Please leave all of the other materials here. We thank you for participating in our study, and please feel free to contact us in the future if you have any questions. Our contact information is provided on your letter of invitation to the session. However, please feel free to stay if you have any further questions. Thank you again and have a good day.

Attachment2. Experimental Allocations by Gender and Ethnicity

Possible Ethnic and Gender Pairs in Experiment

Possible Pairing	Recipient 1	Recipient 2
1	Serb Male	Croat Male
2	Serb Male	Croat Female
3	Serb Male	Bosnjak Male
4	Serb Male	Bosnjak Female
5	Serb Female	Croat Male
6	Serb Female	Croat Female
7	Serb Female	Bosnjak Male
8	Serb Female	Bosnjak Female
9	Croat Male	Bosnjak Male
10	Croat Male	Bosnjak Female
11	Croat Female	Bosnjak Male
12	Croat Female	Bosnjak Female

Subject Gender	Recipient R1	Mean to Recipient R1	Recipient R2	Mean to Recipient 2	St. Dev	% Bias Against R2	N	Difference In Means (R1-R2)
Male	In-Group Male	5.94	Out-Group Male	4.06	1.57	34.4	90	1.88***
	In-Group Male	5.73	Out-Group Female	4.27	1.84	31.9	47	1.46***
	In-Group Female	6.05	Out-Group Male	3.95	1.73	39.3	56	2.10***
	In-Group Female	5.53	Out-Group Female	4.47	1.21	22.4	49	1.06***
	Out-Group Female	5.71	Out-Group Male	4.29	1.82	11.5	52	1.42***
Female	In-Group Male	5.54	Out-Group Male	4.46	1.80	28.8	52	1.08***
	In-Group Male	5.40	Out-Group Female	4.60	1.53	23.3	60	0.80***
	In-Group Female	5.65	Out-Group Male	4.35	1.59	33.3	51	1.30***
	In-Group Female	6.02	Out-Group Female	3.98	2.09	35.3	51	2.04***
	Out-Group Female	5.12	Out-Group Male	4.88	1.72	15.7	51	0.24

*** Significant at $p \leq 0.010$

Attachment 3: Alternate Model Specifications for Tables 5

For subjects with an in-group recipient (N = 457), the dependent variables in Table 5 are coded as follows:

Incidence of Bias = 0 if even 5/5 split, 1 if uneven split regardless of whether the split is in favor of in-group or out-group.
Magnitude of Bias = 0 if 5/5 split, two if a 6/4 split (a difference of 2), four if a 7/3 split, six if a 8/2, eight if a 9/1, and ten if a 10/0 split regardless of whether the split is in favor of in-group or out-group.

The following table recodes incidence and magnitude of bias as follows:

Recode 1 Incidence of Bias = 0 if no bias in favor of in-group, 1 if bias in favor of in-group.
Recode 1 Magnitude of Bias = 0 if no bias in favor of in-group, 2 if a 6/4 split (a difference of 2) in favor of in-group, four if a 7/3 split in favor of in-group, and so on.
Recode 2 Magnitude of Bias = -10 if a 10/0 split in favor of out-group, -8 if a 9/1 split in favor of out-group, -6 if a 8/2 split in favor of outgroup, -4 if a 7/3 split in favor of out-group, -2 if 6/4 split in favor of out-group, 0 if 5/5 split, 2 if 6/4 split in favor of in-group, four if a 7/3 split, six if a 8/2, eight if a 9/1, and ten if a 10/0 split.

	Incidence of Bias (Logit)	Magnitude of Bias (Ordered Logit)	
	Recode 1	Recode 1	Recode 2
In-Group Ties	.579***	.648***	.581***
	(.188)	(.183)	(.167)
Out-Group Threat	.712***	.763***	.660***
	(.150)	(.144)	(.135)
Bosnjak Subject	.098	.103	.198
	(.265)	(.253)	(.239)
Croat Subject	.113	.215	.294
	(.275)	(.263)	(.249)
Female Subject	.003	-.065	-.150
	(.220)	(.210)	(.198)
Age	-.011	-.008	-.006
	(.008)	(.008)	(.007)
Education	.433***	.443***	.434***
	(.163)	(.160)	(.147)
Intercepts excluded			
LL	-250.884	-457.778	-522.707
Adj. R^2	.10	.07	.05
N	451	451	415

*** Significant at $p \leq 0.010$

Attachment 4: Further discussion of experimental behavior and social/political preferences

Several important questions raised by reviewers of this manuscript were a. do we have prewar baselines to judge whether norms re-emerge? and b. are social norms and behavioral experiments good measures of reconciliation? c. why study non-costly as opposed to personally costly behavior? d. what would happen if one were to intentionally mobilize ethnic bias in the experiments? e. why education is correlated with bias/intolerance? I discuss these issues here in more detail than in the manuscript.

a. Pre-war baseline measures

Regarding pre-war baselines, a major social survey in Yugoslavia was administered in 1989 with 13,422 respondents nationwide. Hodson et. al. 1994 among many others, have used this data to show that Bosnia was the most tolerant of the former Yugoslav republics (the Kosovo region was the least tolerant i.e. most ethnically parochial). Hodson et. al. 1994 employed multiple measures of out-group threat perception and in-group ethnic ties to assess tolerance. Inside Bosnia, the results did not vary significantly by ethnicity (Serbs were not seen as more intolerant than Bosniaks or Croats, for example). Bosnians across ethnicity, were the most tolerant people in the study.

Where Hodson et. al (1994) found evidence of pre-war tolerance using attitudinal data, I find similar evidence (more than a decade later) of post-war tolerance using comparable measures of ethnic ties and threat perception as well as experimental data. There are strong relationships between perceptions of ethnic fairness, threat, the salience of ethnic ties, and how people behave in the experiment (Table 5 in manuscript). By multiple measures, egalitarians in the experiment are less parochial in orientation and see others as more fair compared to those who are biased in the experiment (Table 6 in the manuscript).

The table below is an additional tolerance measure based on perception of common inter-ethnic ties, which I am including as part of an online supplementary appendix. During the era of institutionalized "brotherhood and unity" under Yugoslavia, ethnic identification and salience of ethnic differences were discouraged. In response to the question below, I found (nearly a decade after the war) that only 14% say that the differences between Bosnian Muslims, Croats, and Serbs are that great. The majority (56%) think that they share many common ties, and 28% think they are all basically the same. This again does not suggest widespread parochialism and is consistent with tolerance observations by Hodson et.al (1994) before the war. Despite the violence, many people see common ties.

Beliefs about common interethnic ties are also expressed by experimental behavior. In the Table below, egalitarians in the experiment are much more likely to see common ties between the three ethnic groups while subjects with in-group biases see distinct differences. The positive correlation between age and perception of common ties also suggests higher tolerance among those who grew up before the war, consistent again with what Hodson et. al 1994 observed.

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Perceptions of Common Inter-ethnic Ties

Q: In general how would you describe the differences between Bosnian Muslims, Croats, and Serbs? [1 = Differences are great, completely different peoples. 2 = Although there are differences, everyone shares many common ties. 3 = They are all basically the same, no real important differences.]

Ordered Logit Regressions on Perception of Common Ties

Egalitarians (0-1)	.839***		
	(.168)		
Incidence In-Group Bias (0-1)		-1.216***	
		(.217)	
Magnitude In-Group Bias (0-10)			-.193***
			(.033)
Bosniak Subject	.380**	.380*	.384*
	(.186)	(.228)	(.228)
Croat Subject	-.273	-.216	-.141
	(.198)	(.242)	(.242)
Female Subject	.217	.190	.178
	(.155)	(.191)	(.191)
Age	.032***	.031***	.034***
	(.006)	(.007)	(.007)
Education	-.044	-.002	-.023
	(.112)	(.137)	(.136)
Intercept 1	-.251	-1.181	-3.000
	(.459)	(.542)	(.660)
Intercept 2	2.710	1.891	.079
	(.475)	(.545)	(.636)
LL	-595.311	-392.327	-391.226
Adj. R^2	.05	.07	.07
N	660	445	445

*** Significant at $p \leq 0.010$

Had I been able to run these experiments in pre-war Bosnia, the pre-war survey literature tells me that I should have found a strong norm of fairness, as opposed to widespread parochialism. In this study, conducted nearly 8 years after the war, I find most people (66%) are willing to demonstrate a norm of fairness in the experiment. Had I been able to run experiments before the war, it's possible that egalitarianism might be higher than 66%, but I don't think it would have been lower. So I have argued that 66% is a more positive than negative sign regarding the survivability of pro-social norms after violence. Most subjects are able to demonstrate an important behavioral norm of fairness following the conflict that is consistent with pre-war interpretations about cooperative ethnic behavior in Bosnia. Even if the conflict were to have caused a negative shift in attitudes about tolerance, increasing parochialism and distrust, people are still willing to signal cooperative norms behaviorally.

A second related question is whether the effects conflict might have had on different subsets of Bosnian society. In the pre-war data from across Yugoslavia, Hodson et. al (1994) found positive associations between tolerance and the ethnic diversity of one's region, age (older), gender (female), urban dwellers, and a weak positive effect of education. Negative correlates included religiosity, unemployment, and "reading the news", pointing to media effects. Again, in the case of Bosnia, they did not find evidence to suggest that Muslims were significantly more tolerant than Serbs or Croats.

Of course, the pre-war and post-war populations of Bosnia are not the same. Nearly 100,000 people were killed, and hundreds of thousands were displaced internally and abroad. Still, this study finds a great deal of consistency with the prewar data – especially on ethnicity. Bosniaks, Serbs, and Croats behave very similarly and controls for ethnicity were not highly significant in multiple regression models. Gender, age, urban dwelling, religiosity correlations were in the same direction as Hodson et. al. 1994, though significance levels vary in regression models. Also where Hodson et. al. 1994 found weak correlations between tolerance and education, this study sees some association between education and propensity for ethnic bias. This may suggest that highly educated people may be more polarized in the post-war period than the average citizen (which seems very consistent with elite behavior in Bosnia).

The effects of ethnic diversity are in the same direction as Hodson et. al. 1994. I controlled for the effects of pre-war/post-war ethnic heterogeneity on behavior (based on prewar and post-war statistical estimates of the ethnic population) but they were not significant in multiple regression models. Most areas which were ethnic enclaves before the war remain enclaves after the war. Those areas which were formerly mixed are now largely enclaves, as minority populations were driven out. Mixed regions were also generally the most intense conflict areas. The few mixed regions that remain (Tuzla, Sarajevo to some extent) are largely segregated by neighborhoods (ex. Mostar). Hence, I did not find much interesting variation in experimental behavior using a wide range of demographic controls, ethnic fractionalization, or other sources of regional variation. I also looked at localized measures of war severity (number of people killed by region as a percentage of the pre-war population) and the presence/absence of peacekeeping forces. Instead, I find a consistent pattern from region to region where the majority of people are behaving as egalitarians, and I infer from this that norm foundations are largely consistent across Bosnian society rather than contingent on specific groups and regions.

Finally, this study cannot make claims about how people behaved during the war. It's quite possible that norms became more polarized, but there are no reliable data to confirm. Certainly, some component of the local population is complicit in the genocidal acts that took place during the war and many citizens took sides and fought. Many people of mixed ethnicity also fled the country or are internally displaced. I was not given IRB approval to ask subjects personal questions about their conflict experiences and whether or not family members were killed or injured. Instead, I tried to design a study that would simply assess how people behaved at a point in time after the war, without intentionally mobilizing biases about ethnicity. Rather than widespread polarization or parochialism, I found that social norms seemed very resilient to the effects of violence.

b. Use of social norms and behavioral experiments in general to measure reconciliation

To what extent is behavior in a simple decision task a good measure of fairness in a society and is fairness a good measure of reconciliation? These are important external validity question and I address these issues in part by considering how behavior is correlated with attitudinal measures from the survey. This is often a problem for experimental research where attitudes (such as trust) do not correlate well with experimental behavior (as in a trust game). In this study, allocations in the experiment correlate very well with expectations/perceptions of fairness, ethnic ties, and threat perceptions measured in the survey. I take this as a positive sign that what people are doing in the experiment is consistent with how they think about fairness and other ethnic groups in general.

Behavior in the experiment is also correlated with meaningful political preferences. For example, subjects were asked in the survey whether they thought it was essential for Bosnia to remain a unified country or whether parts of Bosnia should be allowed to separate if they so choose. The chart below shows how responses to this question (For Bosnian Unity vs. For Partition) vary with experimental behavior. The figures show that subjects who support partitioning Bosnia are more likely to bias in favor of an in-group recipient in the experiment compared to those who support continued Bosnian unity. The magnitude of bias as measured by mean allocation to the in-group recipient is also higher for those favoring partition than those favoring continued Bosnian unity.

Figures – Effect of Support for Bosnian Unity/Partition on Incidence and Magnitude of In-group Experimental Bias.
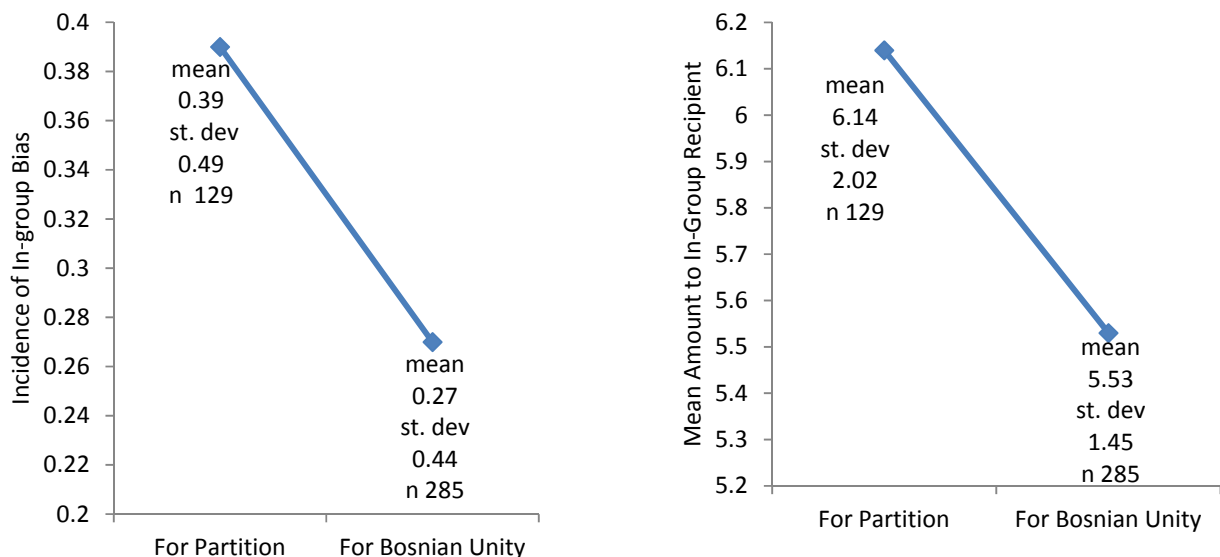
Overall, the ability for people to display a common norm of fairness toward former rivals/adversaries should be a positive sign regarding the prospects for reconciliation. This does

not mean that people in Bosnia won't have major disagreements about whether it is in their best interests to live together in a multi-ethnic state or whether Dayton institutions should be fundamentally redesigned or left alone. These disagreements will likely continue to play out. However, the conflict did not destroy foundations for social cooperation. From this perspective, Bosnia's post-war political problems are more a product of badly designed institutions than a fundamentally irreconcilable polity.

c. Why study non-costly as opposed to personally costly behavior?

The non-costly aspect of the design is important to gauging norms of fairness beyond one's immediate self-interest. The standard dictator game measures norms of fairness (or charity/altruism) as a function of one's willingness to incur a cost in inter-personal exchange. Signaling loyalties to one's co-ethnics is ultimately costly to the dictator. The non-costly design measures norms of fairness indirectly in the context of impersonal exchange. The experiment removes concern for personal loss when deciding whether to punish or reward others based on ethnicity. Hence non-costly and costly designs measure different types of incentives and behavior though charity/altruism and fairness are both types of pro-social norms. I think the non-costly experiment has important implications for norms of distributive justice or fairness in a multi-ethnic society (the allocation of public goods, the application of the rule of law, and the orientation of market behavior). The non-costly experiment shows that people are able to move beyond ethnic parochialism and treat others impartially.

d. Mobilization of ethnic bias

Another question that clearly interests the reviewer is whether behavior changes if they are provoked? I agree that on some level the strength of social norms could be tested by how people respond to an effort to mobilize ethnic bias. Gagnon (2004) and many others have argued how opportunistic elites were able to manipulate ethnic tensions in Bosnia for personal political gain. I considered the possibility of designing a mobilization of bias treatment and compare the results. However, I was denied IRB approval to do this. The IRB review was very thorough on safety issues and did not allow me to administer questions that would bring back traumatic war memories for the sake of an experimental treatment or to potentially stir up ethnic tension in mixed group settings. However, the survey did ask questions regarding threat perception of other ethnic groups, fear and safety concerns of other ethnic groups, and politically sensitive topics that should have heightened thinking about ethnicity. Despite clear ethnic cues in the experiment and survey, the majority of subjects refrained from rewarding co-ethnics and punishing out-groups. This helps strengthen the interpretation that results are a demonstration of a norm of fairness.

e. Why education is correlated with bias/intolerance?

I think that elite behavior in Bosnia may differ markedly in some ways from conventional social norms in the population and this is being reflected in the attitudes of more highly educated people. This has been an ongoing story both in the pre-war (elite entrepreneurs mobilize ethnic bias for personal political and economic gain) and post-war literature (institutions reinforced the divisions of the war). In the post-war period, careers being made on coalitional status within

ethnic communities. Highly educated people are rising in the social ranks in part by signaling their commitments to the group (or they are leaving the country for better prospects). Institutions in Bosnia largely encourage this. Those who are moderate reformers or who engage in cross-coalition building are marginalized by parochials, who control the space for political competition in Bosnia. These groups stand to lose big if constitutional reforms in Bosnia ever take place. Croatia and Serbia also play an important role propagating ethnic divisions in Bosnia. Much of higher education in Bosnia has also become heavily ethno-politicized in the postwar period. Alexander and Christia (2011) have shown that desegregating the education system can be successfully done, but in most areas of Bosnia, education is being conducted exclusively within ethnic communities. Since this study only considered people 18 and up, it will be interesting to see whether the next generation, socialized in the post-war system, is less tolerant than the pre-war, inter-war groups.

Attachment 5: Instructions for Replication of Results

Replication materials are available alongside the electronic version of this article at the Journal's website, maintained by the publisher at http://jcr/sagepub.com/

Data analysis for this article was performed in Stata 11. You should have access to both the data file and do file for the article. If you run the do file, it will generate all the variables you need to replicate the tables in the article. Regression commands for Tables 5 and 6 are included at the end of the do file.

The variables in the data file are the raw experimental and survey data and have not been encoded or transformed. These variables are labeled and otherwise explained in the data file. Transformation, encoding, recoding is done in the do file and here is an explanation of the new variables created.

Subject demographic variables (all variable names in bold)

bosniak, croat, serb = dummy variables for Bosniak, Croat, and Serb subjects

female, education, age = created from survey questions, explained in the article, labeled.

Experimental Recipient demographic variables

d4bosniak1, d4bosniak2 , d4croat1, d4croat2, d4serb1, d4serb2

These are dummy variables for the ethnicity of the recipient in the experiment. (See Attachment 1 Experimental Instructions Decision Exercise #4 for details).

d4gencode1, d4gencode2

These are dummy variables for the gender of the recipient in the experiment. (See Attachment 1 Experimental Instructions Decision Exercise #4 for details). Female = 1 and Male = 0 for all gender variables (subject and recipient).

sameethnicity = dummy variable for whether the subject is paired with a co-ethnic recipient.

serbpartner, croatpartner, bosniakpartner = dummy variables for whether a subject is matched with a recipient of the stated ethnicity.

Experimental Analysis variables (Tables 1-6, Appendix tables)

d4bosniaksentbosniak, d4bosniaksentcroat, d4bosniaksentserb
d4croatsentcroat, d4croatsentbosniak, d4croatsentserb
d4serbsentserb, d4serbsentbosniak, d4serbsentcroat

These variables are for Table 3.

These variables indicate the amount the subject sent to a recipient by ethnicity of both subject and recipient. Hence, d4bosniaksentbosniak tells you the amount a bosniak subject sent to a bosniak recipient.

d4malesentingroupmale, d4malesentingroupfemale, d4femalesentingroupfemale, d4femalesentingroupmale

d4malesentoutgroupmale, d4malesentoutgroupfemale, d4femalesentoutgroupmale, d4femalesentoutgroupfemale

These variables are for Appendix Attachment 2.

Long names, but hopefully clear. These variables indicate the amount the subject sent to a recipient by gender AND ethnicity (ingroup vs. outgroup) of both subject and recipient. Hence, d4malesentingroupmale tells you the amount a male subject sent to a male co-ethnic recipient.

inoveroutbias, inoveroutbias2, outoverinbias, outoveroutbias

These variables are dependent variables for Table 5.

The "in" and "out" stand for ingroup and out-group as defined by ethnicity. These are dummy variables for whether the subject split the money evenly (bias = 0) between the two recipients or whether unevenly (bias = 1).

Inoveroutbias = 1 means bias in favor of the in-group. Inoveroutbias = 0 means no bias in favor of in-group. Recipients who sent more to an out-group than an in-group are coded zero indicating no positive in-group bias. (see inoveroutbias2 for alternate coding)

Inoveroutbias2 = 1 means that subjects divided money unequally between an in-group and out-group recipient, regardless of whether the division was in favor of the in-group or out-group recipient. Inoveroutbias2 = 0 means subjects divided the money evenly. Table 5 uses Inoveroutbias2 as the dependent variable. Appendix Attachment 3 uses Inoveroutbias as an alternate dependent variable.

Outoveroutbias = 1 means that the subject was given two non-coethnic recipients and sent more money to one than the other. Outoveroutbias = 0 means the subject split the money evenly between two non-coethnic recipients. This is a dependent variable in Table 5.

d4inoveroutbias, d4outoverinbias, d4outoveroutbias

These variables are for Table 3.

These variables indicate the amount of money subjects sent to one recipient over the other. Hence, d4inoveroutbias = 5 then the subject split the money evenly between a co-ethnic and non co-ethnic recipient. d4inoveroutbias = 10 means the subject sent the co-ethnic 10 units and the non-coethnic 0 units.

D4outoveroutbias = 5 means the subject split the money between two non co-ethnic recipients. D4outoveroutbias = 10 means the subject gave one non co-ethnic recipient 10 units and the other non co-ethnic 0 units.

magnitudeinbias, magnitudeinbias2, magnitudeinbias3

These variables are dependent variables Table 5 and recodes for the appendix.

These variable indicates the amount of money a subject sent in favor of a co-ethnic recipient over a non co-ethnic recipient.

Magnitudeinbias is coded 0 if no bias in favor of in-group, 2 if a 6/4 split (a difference of 2) in favor of in-group, four if a 7/3 split in favor of in-group, and so on. This is dependent variable is used in Appendix Attchment 3.

Magnitudeinbias2 is coded -10 if a 10/0 split in favor of out-group, -8 if a 9/1 split in favor of out-group, -6 if a 8/2 split in favor of outgroup, -4 if a 7/3 split in favor of out-group, -2 if 6/4 split in favor of out-group, 0 if 5/5 split, 2 if 6/4 split in favor of in-group, four if a 7/3 split, six if a 8/2, eight if a 9/1, and ten if a 10/0 split. This is dependent variable is used in Appendix Attchment 3.

Magnitudeinbias3 is coded 0 if 5/5 split, two if a 6/4 split (a difference of 2), four if a 7/3 split, six if a 8/2, eight if a 9/1, and ten if a 10/0 split regardless of whether the split is in favor of in-group or out-group. This variable is used in Table 5.

egalitarian

This is an independent variable in Table 6.

Dummy variable for egalitarian subjects. 1 means subjects split money evenly. 0 means subjects divided money unevenly between recipients.

Survey related variables

outgroupthreat

This is an independent variable in Table 5.

These variables are created from survey questions about safety in the presence of serbs, croats, bosniaks as explained in the article. Outgroupthreat is an index created for subjects combining their responses to questions about safety in the presence of other groups.

outgroupfairness, serbfairness, croatfairness, bosnjakfairness

This is a dependent variable in Table 6.

Generated from a survey question on fairness of other ethnic groups. Fairnessothers = 0 means subjects think people of other ethnicity would take advantage of them if given the chance. 1 means subjects think others would treat them fairly.

serbfairness, croatfairness, bosnjakfairness are also dependent variables for Table 6. Coding is explained in the manuscript. Range from 1 to 4 increasing with perception of fairness of serbs, croats, bosniaks. Regressions in the do-file are run with in-group members excluded.

commonties

This is a dependent variable for Appendix Attachment 4. It measures perceptions of common inter-ethnic ties among Bosniaks, Serbs, and Croats.

Q: In general how would you describe the differences between Bosnian Muslims, Croats, and Serbs? [1 = Differences are great, completely different peoples. 2 = Although there are differences, everyone shares many common ties. 3 = They are all basically the same, no real important differences.]