Article

Journal of Conflict Resolution
2014, Vol 58(1) 93-119
© The Author(s) 2012
Reprints and permission:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/0022002712459714
jcr.sagepub.com
SAGE

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

Sam Whitt[1]

Abstract
This study considers prospects for the revitalization of social norms after ethnic violence using a behavioral experiment in postwar Bosnia. In the experiment, subjects are asked to distribute a ten-unit monetary sum between two anonymous recipients of random ethnicity. The results indicate a surprisingly high number of egalitarian distributions across ethnicity, which is interpreted as evidence of a norm of fairness. Discriminating behavior in the experiment is explained as a product of ethnic parochialism (rewarding co-ethnics and punishing non-co-ethnics). Overall, the experiment speaks to the resiliency of an important aspect of pro-social behavior after violence—impartiality in the treatment of others.

Keywords
ethnic conflict, norms, fairness, experiment, dictator game, Bosnia

To what extent can cooperative, pro-social norms reemerge across ethnicity following a period of ethnic violence? This study examines the impact of ethnic violence on a basic norm of fairness. Although there are disagreements about the origins

[1]High Point University, High Point, NC, USA

Corresponding Author:
Sam Whitt, Department of Political Science, High Point University, 833 Montlieu Ave., High Point, NC 27262, USA.
Email: swhitt@highpoint.edu

of social norms, how they evolve, and whether they are endogenous to culture or institutions, most scholars believe that they are vital to cooperation in large complex societies (Axelrod and Hamilton 1981; Gambetta 1988; Coleman 1990; Putnam 1993; Hardin 1995; Jackman and Miller 1998; Ostrom 2000; Hechter and Opp 2001; Fukuyama 2011). Acknowledging the consensus that norms are important, if not causal, for functional civil societies, market economies, and political institutions, this study asks how they are affected by violence arising from an ethnically polarizing civil war?

Many explanations of ethnic conflict attest, either directly or indirectly, to the role played by mutual fear, distrust, resentment, or hatred of other ethnic groups, but there is disagreement whether ethnic aversions are enduring, temporary, what drives them, and if they are necessary and/or sufficient for conflict to occur (Horowitz 1985; Posen 1993; Lake and Rothchild 1996; Weingast 1998, Saideman 1998; Snyder and Jervis 1999; De Figueiredo and Weingast 1999; Petersen 2002; S. Kaufman 2001, 2006a, 2006b; Kalyvas 2006). If ethnic conflict is in part a product of mutual fear, hatred, distrust, resentment, then what happens when conflict ends? If those aversions are real and enduring, then social norms could remain highly polarized in postconflict societies. There are the positive, pro-social norms applied to co-ethnics and then another set of negative, punitive norms for dealing with former adversaries—a scenario that bodes poorly for multiethnic state building and reconciliation after violence. However, what if some norms are resilient to the effects of violence? This study examines social norms across ethnicity in the aftermath of a devastating civil war in Bosnia. Contrary to expectations of widespread ethnic parochialism, the study finds evidence of a norm of fairness in the Bosnian population, suggesting that for many, social norms can revitalize after violence.

Motivation: Violence and Foundations for Intergroup Cooperation

There is a growing interest in the relationship between violent conflict, behavioral norms, and the evolution of group cooperation. One long-standing argument is that conflict reinforces in-group solidarity, serves as a stimulus for social cohesion, and facilitates certain adaptations in individual behavior that increase the chances of group survival (Crook 1994; Thayer 2004; see also Shaw and Wong [1987] and Goldstein [1987] for an earlier debate). Recent research has focused on the coevolution of war and parochial altruism, where conflict enhances and feeds off the willingness of group members to self-sacrifice for the larger collective (Bernhard, Fischbacher, and Fehr 2006; Choi and Bowles 2007; Bowles 2008). Some have also identified neurobiological foundations of parochial altruism as well as interpersonal trust and trustworthiness in the regulation of oxytocin (Zak, Kurzban, and Matzner 2005; De Dreu et al. 2010, 2011; Chen, Kumsta, and Heinrichs 2011). Observations of pro-social behavior after violence are also being reported in various case literatures around the world (Bellows and Miguel 2009; Blattman 2009; Blattman and

Miguel 2010; Voors et al. 2011; though see Cassar, Grosjean, and Whitt [2011] for an exception).

If violence can have powerful pro-social effects on norms within groups, how does it impact norms of cooperation across groups? On one hand, if conflict reinforces group solidarity and increases parochialism toward those not within the group, then cooperation among former rivals and combatants runs contrary to evolutionary impulses within human nature. It would serve as one explanation for why some societies remain frozen or trapped in conflict, plagued by civil war and insurgency—violence undermines foundations for trust and cooperation, institution building, democratization, and development (Collier et al. 2003; Collier and Hoeffler 2004; Nunn and Wantchekon 2011). On the other hand, violence is a well-known rare event in the universe of ethnic groups living together, and ethnic groups can recover from periods of intergroup conflict and live peacefully in multiethnic societies (Brubaker and Laitin 1998). Although violence can be devastating in the short term, Chen, Loayza, and Reynal-Querol (2008) show that over time, most states recover and remain peaceful, offering indirect evidence that norms of cooperation can reestablish over the long term. Experimental research also suggests that racial and ethnic encoding are not necessarily fixed and enduring, but have evolved to detect coalitional alliances which can be both activated and possibly "erased" (Kurzban, Tooby, and Cosmides 2001). This begs the question whether evolutionary mechanisms for group survival could involve adaptations for cooperating with others beyond the group, including the emergence of pro-social intergroup norms and complex institutions for maintaining them?

Norms and institutions provide important foundations for stability in multiethnic societies (Varshney 2001), and, ideally, they reinforce one another (Ostrom 1986; North 1991; Knight 1992; Greif 2006; North, Wallis, and Weingast 2009). In ethnically divided societies, norms and institutions can enhance cooperative behavior among groups and discourage parochialism (Lake and Rothchild 1996; Fearon 1998; Easterly 2001). They also provide an explanation for how ethnically diverse societies generally avoid problems of violence. Scholars have argued that ethnic diversity, if a cause at all, is not a sufficient cause of ethnic violence or civil war, which is itself a rare event (Brubaker and Laitin 1998; Fearon and Laitin 2003; Fearon, Kasara, and Laitin 2007). Even when formal institutions fail or states collapse, ethnic groups often sustain cooperation through norms and informal self-policing mechanisms (Fearon and Laitin 1996). Violent outcomes are most likely where ethnic divisions become highly salient and polarizing and cooperative norms and institutions are either absent or have eroded (Sambanis 2001; Elbadawi and Sambanis 2002; Posner 2004; Montalvo and Reynal-Querol 2005; Hegre and Sambanis 2006; Wood 2008; Bhavnani and Miodownik 2009). Where ethnic violence does occur, norms may play an important role in deciding whether or how quickly conflict is resolved (Bhavnani and Baker 2000). Norms also appear vital to the prospects of reconciliation after violence (Maoz 2000; Abu-Nimer 2001; Rigby 2001; Bar-Simon-Tov 2004; Gibson 2002, 2004; Staub 2000; Staub et al. 2005).

Finally, scholars have considered whether ethnic conflicts, once initiated, are more prone to recurrence due to the persistence of ethnic rivalry (Hegre 2004; Fearon 2004; Walter 2004). If conflict increases ethnic ties and solidarity (increasing pro-social norms within the group), then it may also heighten in-group/out-group divisions and reduce foundations for cooperation among them. This leads some to claim that rebuilding multiethnic societies after violence is unlikely to succeed and partition of ethnic rivals is the best option for peace (C. Kaufman 1996, 1998; Muller 2008). Others disagree and point instead to integrative solutions within multiethnic frameworks (Kumar 1997; Walter 2004; Hale 2004; Lake and Rothchild 2005; Habyarimana et al. 2008).

This study contributes to the discussion of violence and intergroup cooperation by examining social norms in the aftermath of civil war. Norms can provide one indicator whether multiethnic integration is a viable solution to resolving ethnic conflict. If cooperative norms can reemerge, then it lends support to integrationist strategies of multiethnic institution building after violence. If norms remain highly polarized and segregated by ethnicity, then it emboldens arguments for partition. This study considers social norms in the case of postwar Bosnia. In a period of less than eight years after the end of the Bosnian war, it asks whether cooperative norms have reemerged across ethnicity or whether they remain divisive and parochial. Bosnia is an excellent test case in part because it has fueled much controversy about ethnicity and institution building. The research design presented here can also be easily replicated in other postconflict environments beyond Bosnia.

Social Norms in Bosnia

Few cases of ethnic conflict have attracted as much scholarly attention and scrutiny as the Bosnian conflict of the early 1990s and the postwar reconstruction effort under the Dayton Accords. Research conducted before the war indicates that Bosnia was one of the most ethnically tolerant societies in the former Yugoslavia (Burg and Berbaum 1989; Hodson, Sekulic, and Massey 1994; Sekulic, Massey, and Hodson 1994; Somer 2001; Gagnon 2004). If the Bosnian conflict was driven by mutual fear, resentment, distrust, or hatred, then prewar social norms may have either rapidly disintegrated with the ensuing conflict or remained intact but unenforceable under dangerous and uncertain conflict conditions. This study asks whether peaceful and cooperative norms of the prewar era revitalized once the fighting ended.

By 2003, when this study began, Bosnia had emerged from the war as an independent multiethnic republic with complex ethnic power sharing arrangements across ethnicity. Bosnia still faces numerous challenges internally, and ultimate questions about Bosnia's future are frequently raised. Much literature from the postwar period on Bosnia points to institutional failure and the entrenchment of ethnic divisions (Woodward 1999; Chandler 2000; Bose 2002; Velikonja 2003; Friedman 2004; McMahon 2004). First, nationalist party support has been persistent in Bosnia with moderate parties performing poorly in elections (Caspersen 2004). Of

the elections held before this study began (in 1996, 1997, 1998, 2000, and 2002), only one (2000) produced a victory for a multiethnic coalition, which eventually collapsed before the end of term. Bosnia is also currently without a functioning central government for more than a year. Second, survey data show that generalized interpersonal and interethnic trust remain a problem (Håkansson and Sjöholm 2007). O'Loughlin and Tuathail (2009) raise concerns about separatist sentiment in the Bosnian population which appears tied to general trust issues. Dyrstad (2010, 2011) finds increasing attitudes of intolerance and support for authoritarian values in postwar Bosnia when compared to prewar survey data. McMahon and Western (2009) warn of a possible collapse of Dayton institutions and renewed prospects for ethnic conflict.

The focus on the entrenchment of ethnic divisions in postwar Bosnia stands in sharp contrast to research on the Yugoslav period, which typically disavows ethnic polarization as a leading cause of the war. Some literature offers evidence of a cooperative Bosnian polity often constrained by poorly performing institutions. Pickering (2006) points to the emergence of interethnic social capital in the workplace in certain localized contexts. Jeffrey (2007) attributes institution building to the success of refugee return to the Brčko district. Caspersen (2008) and Bakke et al. (2009) report that ethnic cleavages are becoming more fractionalized and ethnic divisions less pronounced as new cross-cutting issues emerge. Alexander and Christia (2011) find evidence of positive effects of interethnic integration on public good contribution. I also observe strong linkages between trust across ethnicity and institutions that transcend trust deficits in Bosnian society (Whitt 2010).

The current case literature on Bosnia sends mixed signals about reemerging norms after violence. One line of research points to polarization and entrenched ethnic division. Another sees more potential for cooperation. This study examines prospects for intergroup cooperation using a novel behavioral experiment. Through the observation of behavior in a simple decision-making task, the experiment seeks to measure an underlying norm of fairness across ethnicity. If ethnic divisions are engrained within social norms, it should appear behaviorally in the way subjects treat co-ethnics compared to former rivals.

Experiments with Social Norms

The experiment used in this study is an adaptation of the classic dictator game (Kahneman, Knetsch, and Thaler 1986; Forsythe et al.1994; Hoffman, McCabe, and Smith 1996; Eckel and Grossman 1996). In the 1980s, economists began using laboratory experiments to examine fundamental assumptions about economic behavior. In the typical experiment, subjects are asked to make a decision regarding the distribution or division of money between themselves and an anonymous player or counterpart. Economists have long observed that people make decisions contrary to their self-interest (Roth 1995). Instead, many scholars have found that decision making is often motivated by social norms involving altruism, trust, a sense of

fairness, or other meaningful "pro-social" or "other regarding preferences" (Camerer 2003; Camerer and Fehr 2004).

Scholars have also begun utilizing behavioral experiments in the study of ethnicity. Glaeser et al. (2000), using a trust game, observed declining trust across race and nationality. Fershtman and Gneezy (2001) examined how ethnicity effects dictator game allocations among ethnically diverse student populations in Israel. Henrich et al. (2001, 2004) utilized behavioral experiments to compare cross-cultural decision making in fifteen small-scale societies around the world (see also Gil-White 2004). Bahry and Wilson (2006) applied the dictator, trust, and ultimatum games in Russia to examine ethnic relations after communism among ethnic Russians, Tatars, and Yakuts. Habyarimana et al. (2007, 2009) considered the effects of ethnicity on public good provision in Uganda. Hence, over the past decade, experiments have become useful tools for behavioral research both in laboratory and field settings across a wide range of comparative political/institutional, cross-national/cross-cultural environments (Humphreys and Weinstein 2009). This study uses a variation on the dictator game to assess how ethnicity affects a norm of fairness.

The dictator game receives its name from the fact that the subject always dictates the outcome of the game. In the standard dictator game, the subject decides how to allocate a sum of money between himself or herself and an anonymous counterpart, who plays no active role in the experiment. The subject earns whatever he or she decides to keep in the experiment, and the remainder is passed on to the anonymous counterpart. Originally developed for measuring self-interest behavior, the dictator game has evolved into a tool for gauging how norms change under varying social and environmental treatments. Dictator games have now been implemented in lab and field research studies by many social scientists. A recent meta-analysis by Engel (2010) of 129 dictator game experiments and over 40,000 observations shows that on average only one third of subjects behave as *homo economicus*, keeping everything for themselves. The rest give a portion of the allotment to the counterpart, which has been interpreted in various ways as a demonstration of altruism, benevolence, charity, fairness, and more generally as "other regarding" or "pro-social" behavior (Camerer 2003). Perhaps more importantly, Engel (2010) observes how behavior in the experiment is affected by key experimental treatments including gender, age, social distance, perceived merit or deservingness of the recipient, society of origin, and aspects of the experimental design.[1] The last point is critical because aspects of the research design are important to understanding what types of preferences and behaviors are elicited (Levitt and List 2007; List 2007). This study makes use of a dictator game with a non-costly adaptation.

Research Design

In this experiment, subjects must decide how to allocate 10 monetary units (in this case, 10 Bosnian Marks worth approximately $5.50, hereafter abbreviated 10 KM) between two anonymous counterparts or recipients. They may not keep any of the

10 KM for themselves.[2] The recipients are not present in the room but are represented by two envelopes each marked SEND. Each SEND envelope indicates the ethnicity and gender of the recipient. Subjects are told that the SEND envelopes will go to experimental participants at a future session. The envelopes were combined such that the ethnicity of the two recipients would always differ. Some subjects would receive an in-group/out-group pairing while others would decide between two different out-group recipients. However, in no case will both recipients be of the same ethnicity as the subject or each other. Gender was also randomized along with ethnicity, so subjects could be allocating between a male and female recipient, between two males, or between two females. Using these rules, there were in total twelve possible recipient pair combinations based on ethnicity and gender. These recipient pairs were distributed randomly to the subjects.

At the start of the experiment, subjects are given 10 KM in 1-KM paper banknotes and ten slips of paper of equal size and color as the Bosnian Marks, and are randomly assigned a pair of opaque envelopes labeled with the ethnicity and gender of each recipient. They are told to place either Bosnian Marks, blank paper slips, or any combination of the two in each envelope so that in the end each envelope contains ten items total. Once they have completed this task, they seal both envelopes and return them to the experiment administrator. After the experiment is completed, subjects receive envelopes from anonymous counterparts from a previous experimental session and may keep whatever they contain. This was done after each experiment to reinforce the belief that subjects' allocations are indeed going to a real person and that the decisions will have a clear impact on someone's earnings. It also reinforces the awareness of the ethnicity and gender of the potential recipient and sender.

In total, subjects took part in five experiments, of which this is the fourth. The first three experiments are standard dictator games with ethnic treatments where decisions are personally costly to the dictator (Whitt and Wilson 2007). While subjects earned no money directly in this experiment, they earned on average $13.80 (*SD* 2.40) from the other experiments, including money that was allocated to them by others in this experiment. No one knew his or her total earnings until the end of the experimental session, when participants were allowed to open all envelopes and view the contents. Details regarding all experimental instructions are provided in a Supplemental Appendix to this article, available online at the journal's website.

The purpose of this experiment is to reveal whether the subject will discriminate on the basis of ethnicity when incentives for personal gain are removed from the context of the allocation decision. In the standard dictator game, pro-social behavior comes at a cost to the dictator—in the amount he or she sends to an anonymous counterpart. In this experiment, every decision is non-costly to the dictator. Hence, fairness is cheap but so is discriminating behavior. The experiment has important implications about impartial authority, norms of distributive justice, or fairness in a multiethnic society, and their impact on the allocation of public goods, the application of the rule of law, and the orientation of market behavior (Rawls 1971, 2001; Sen 2009). Moreover, in this case, there are no institutions mandating fair or

equitable treatment. Fairness is entirely at the discretion of the dictator, and the decision is made anonymously. This study claims that egalitarian distributions or allocations are driven by a norm of fairness while asymmetric allocations are driven by treatment effects. Subjects who are ethnically biased will send more money to co-ethnics (signaling in-group solidarity) and less to non-co-ethnics (signaling aversion and punishment). In addition to ethnicity, gender is included as an additional variable of context and because dictator game experiments have found that women tend to be more pro-social than men (Eckel and Grossman 1998; Engel 2010). This experiment will consider whether women will be more egalitarian in their distribution choices than men will be both within and across ethnicity.

To summarize, the experiment will tap into a basic norm of fairness across ethnicity. Egalitarian distributions in the experiment are seen as an encouraging sign for the revitalization of pro-social norms. Conversely, if the study shows a strong propensity for parochialism—to punish other ethnic groups and reward in-group membership—then it also bodes poorly for real-world social interaction. It would suggest that reconciliation and multiethnic state building will be difficult because of a need to constantly monitor and police all forms of political, economic, and social exchange to prevent widespread ethnic opportunism. Finally, while most experimental research has been conducted with student populations in university laboratories, this study makes use of a diverse, random sample of the Bosnian population.

Data Collection and Sample Characteristics

Recruitment of subjects for this experiment was provided by a private firm using a stratified-random sampling method.[3] Sampling took place across sixteen different regions in Bosnia in both urban and rural areas.[4] Subjects were initially approached by a local recruiter with an invitation letter to participate in the study. If they agreed to participate, they were told the time and date of the local session, which was usually either a hotel or a restaurant conference room or a schoolroom in the center of the nearest town or central location. Subjects were screened at the door for their invitation letters and addresses were verified by the author and the local project leader. A local administrator oversaw the random-route recruitment process in each sampling location.

Once subjects were verified as participants in the study, they were seated in a common room in groups of eighteen to twenty-nine. To prevent people from observing each other's work, they were seated behind large screens which had previously been used as voting booths in municipal elections. The screens provided subjects privacy when making decisions. Subjects were also placed at reasonable distances from one another to prevent discussion during the group sessions.

The sessions were led by a local administrator, who read from a standard script (see online Supplemental Appendix). Although the administrator varied from place to place, the experimental procedures were standardized. Subjects completed a short

Table 1. Sample Characteristics.

Ethnicity	*N*	%	Gender	*N*	%
Bosniak	255	37.4	Male	352	51.7
Croat	206	30.3	Female	329	48.3
Serb	220	32.3			
Age	*N*	%	Education	*N*	%
18-24	185	27.2	Primary	48	7.1
25-34	163	24.0	Incomplete Secondary	39	5.7
35-44	136	20.0	Completed Secondary	473	69.7
45-54	131	19.3	Higher Education	119	17.5
55-77	65	9.5			
Residence	*N*	%	Employment	*N*	%
Urban	410	60.3	Employed[a]	483	71.9
Suburban, Small Town, or Village	270	39.7	Unemployed	189	28.1

[a]Includes pensioners, housewives, and students.

survey, followed by the experiments.[5] Data from the survey were used to compile attitudinal measures for this analysis as a way of predicting experimental behavior.

Table 1 provides an overview of sample variation. In total, 681 subjects took part in the study between September 2003 and January 2004.[6] Approximately one-third of the subjects are Bosniak, Croat, and Serb. Croats were oversampled compared to actual population parameters for statistical power. For all three ethnic groups, approximately half the subjects are female. Subjects range in age from eighteen to seventy-seven years, with various educational backgrounds and from different urban and rural environments. High unemployment is consistent with official estimates of over 40 percent in the general population. Sampling was conducted in sixteen locations across Bosnia varying by population size and ethnic diversity, wartime severity, peacekeeping activity and international engagement, and across internal political boundaries. Hence, the sample reflects the heterogeneity of Bosnia's regions and the variety of conditions in the field. Compared to most experimental research which uses convenience samples or student populations, this is a highly diverse, random sample, representative of the broader population.

Analysis

In this experiment, subjects must decide how to allocate 10 KM between two anonymous counterparts of varying ethnicity and gender. Figure 1 indicates the range of choices that subjects made in allocating money between the two recipients. Over two-thirds (66.4 percent) divide the 10 KM equally—5 KM to one recipient and 5 KM to the other. Those who divide the money unevenly are well distributed. Roughly 10 percent give 4 KM to one recipient and 6 KM to the other; 8 percent give all 10 KM to one recipient and 0 KM to the other and so on. However, egalitarian distributions are clearly dominant in experimental decision making. Is this evidence

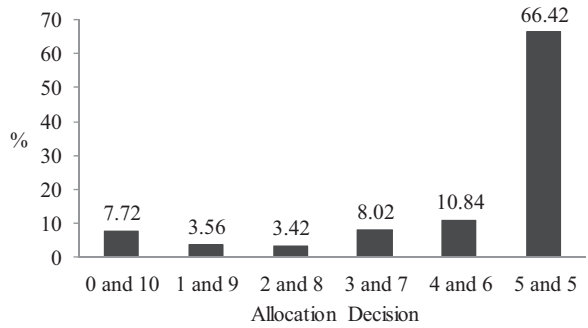

Figure 1. How subjects allocated 10 KM between two recipients (percentage).

Table 2. Experimental Allocations by Ethnicity (In-group vs. Out-group Comparisons).

Allocation decision	Frequency	*N*	%	*M*	*SD*
In-group > Out-group	143	457	31.3	7.68	1.56
In-group = Out-group	296	457	64.8	5.00	0.00
In-group < Out-group	18	457	3.9	2.67	1.68
Out-group > Out-group	65	216	30.1	7.78	1.57
Out-group = Out-group	151	216	69.9	5.00	0.00
Total	673	673	100		

that a strong norm of fairness has reemerged in postwar Bosnia or just an experimental anomaly? The analysis focuses on explaining why some subjects divided the money equally while others were subjects were clearly partial in their allocations.

Since subjects were aware of the gender and ethnicity of the recipients, those who divided the money unevenly could have taken either or both factors (or neither) into account in making their decision. If subjects are motivated by parochialism, they will reward co-ethnics (if given the chance) and punish out-groups. There may also be important differences between allocations to different ethnic out-groups if some ethnic groups are preferred over others.

Table 2 illustrates different allocation decisions. In the experiment, 65 percent allocate money between a co-ethnic and a non-co-ethnic recipient (determined randomly), while the remaining 35 percent allocate money between two non-co-ethnic recipients (also determined randomly). Among the subjects who are paired with a co-ethnic recipient, two-thirds (64.8 percent) divide the money equally, while the remaining one-third send more to the in-group recipient. Only 4 percent send less to an in-group recipient than an out-group recipient. This suggests that unequal divisions are not random, but the product of an in-group effect. Among subjects who

Table 3. Experimental Allocations by Subject and Recipient Ethnicity.

Subject ethnicity	Recipient R1	Mean to recipient R1	Recipient R2	Mean to recipient R2	*SD*	% Bias against R2	*N*	*t*-test for difference in means (R1 = R2)
Bosniak	Bosniak	5.55	Croat	4.45	1.33	22.5	80	5.23***
	Bosniak	5.86	Serb	4.14	1.70	37.5	88	6.71***
	Croat	5.37	Serb	4.63	1.72	22.9	83	3.86***
Croat	Croat	6.05	Bosniak	3.95	1.92	31.3	64	6.19***
	Croat	5.81	Serb	4.19	1.71	31.5	73	5.72***
	Serb	5.08	Bosniak	4.92	1.93	19.7	66	0.48
Serb	Serb	5.68	Bosniak	4.32	1.77	36.8	76	4.74***
	Serb	5.57	Croat	4.43	1.57	28.0	75	4.45***
	Croat	5.07	Bosniak	4.93	1.57	13.4	67	0.52

***Significant at $p \leq .010$.

re paired with two out-group recipients, over two-thirds (69.9 percent) split the money equally between the two out-groups, while the remaining one-third divided the money in favor of one out-group over the other.

The relationship between ethnicity and experimental bias is investigated further by breaking down allocation decisions by subject and recipient ethnicity. For example, will Serbs give more money to Croats than to Bosniaks? Table 3 reports the mean amount sent to each recipient in the pair, the standard deviation in the means, the percentage of subjects who allocated less to the second recipient (R2) than to the first (R1), and *t*-test results for whether the difference in the mean allocations is significantly greater than zero.

For all three ethnic groups, Table 3 shows that bias is more likely when the choice is between an in-group and an out-group. For those who are given a pair of out-group recipients, only Bosniak subjects are significantly more biased against one group over the other—in this case against Serbs in favor of Croats. For the others, the main effect is in-group.

Gender is an additional treatment in this experiment, but subjects are more responsive to ethnic than to gender cues (see tables in online Supplemental Appendix). Male and female subjects send more to other in-group males and females than to out-group males and females. As long as one recipient is a co-ethnic, gender differences are not apparent. For those paired with two non-co-ethnic recipients, males tend to send more to an out-group female over an out-group male. Female subjects, however, are not preferential to out-group females over out-group males. Overall, in deciding how to allocate money in this experiment, ethnicity is the dominant treatment.

To summarize, the analysis shows that two-thirds of subjects divide the money equally while one-third are discriminating. When given the choice, subjects who are biased send more money to a co-ethnic recipient, but out-group over out-group bias

Table 4. Summary of Variables.

	In-group recipient		Out-groups only	
	M	*SD*	*M*	*SD*
Dependent variable				
Incidence of bias	0.35	0.48	0.30	0.46
Magnitude of bias	1.85	3.13	1.68	3.08
Independent variables				
In-group ties	2.12	0.65		
Out-group threat	2.30	0.80	2.27	0.80
Bosniak subject	0.37	0.48	0.38	0.49
Croat subject	0.30	0.46	0.31	0.46
Serb subject	0.32	0.47	0.31	0.46
Female subject	0.47	0.50	0.53	0.50
Age	35.04	13.54	35.48	13.38
Education	2.99	0.74	2.96	0.70
N	451		215	

is about as common in the experiment. This study claims that non-egalitarians are driven by parochialism, rewarding in-groups and punishing unfavorable out-groups, while egalitarians are motivated by an underlying norm of fairness. The analysis now turns to multivariate models to assess whether the experiments are capturing the treatment effects.

Accounting for Ethnic Bias

First, to what extent is it valid to claim that non-egalitarian allocations are driven by ethnic bias? To account for ethnic bias in the experiments, I turn to multivariate analysis of attitudinal data on the strength of in-group ties and negative perceptions toward out-groups. The relationship between in-group ties and out-group bias should be apparent. If given the option of an in-group and an out-group recipient, subjects who have strong ties to their ethnicity (i.e., more parochial) should be more biased in favor of co-ethnics than those for whom ethnic ties are less salient and valued. Negative perceptions of out-groups should also drive bias. People who are highly fearful of out-groups should be prone to negative out-group biases. Hence, the effects of in-group ties and out-group threat perception will serve as a check on the internal validity of this experiment. Subjects with stronger in-group ties will reward co-ethnics in the experiment, and those with stronger out-group aversions will punish non-co-ethnics.

Table 4 contains summary statistics for key variables. Subjects who allocate money with a co-ethnic recipient are analyzed separately from those allocating between to non-co-ethnics. There are two dependent variables in the analysis—the first measuring the incidence of bias in the experiment and the second measuring the magnitude of that bias. The first is a simple dummy variable coded zero if subjects

split the pot 5/5 and one if any other decision. The second is coded zero if the subject chose a 5/5 split, 2 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.[7]

The remaining variables given in Table 4 are the independent and control variables. For the strength of in-group ties, I use a simple survey measure with three categories ranging from weak in-group ties to strong in-group ties. The question reads: "In general, how important is your ethnicity to you?" Response categories are 1 = *it is not at all important to me*; 2 = *it is important, but not the most important thing for me*; 3 = *It is very important part of who I am*. Comparisons of response means by ethnicity do not indicate major differences in how Bosniak, Croat, and Serb subjects feel about their ethnic identity.[8] Subjects with strong in-group ties should be more biased toward in-groups than should those for whom ethnic ties are less important.

To measure attitudes toward out-groups, I use a survey question reading: "In general, how safe do you feel in the presence of [Bosniaks, Croats, Serbs]?" Response categories range from 1 = *very safe in the presence of out-groups* to 4 = *very unsafe*. Comparisons of response means by ethnicity do not indicate major differences in out-group threat perception.[9] Factor analysis indicated that responses to out-group threat perception line up on single dimensions. Hence, people who feel threatened by one out-group also tend to feel threatened by the other. This is not unusual since violence was perpetrated by members of all three groups during the war (see also Whitt [2010] on similar ethnic trust dynamics in Bosnia). The responses were then combined into α scores of out-group threat perception for Serb, Croat, and Bosniak subjects separately. The scale reliability coefficient for out-group threat perception for Serb subjects (threat of Bosniaks and Croats) is .89. The α for Bosniak subjects is .93, and .76 for Croat subjects. The α scores were then combined into a single measure of out-group threat perception assigning values appropriate to each subject's ethnicity. Subjects who generally feel more threatened by out-groups should have a greater incentive to be biased against out-group recipients in the experiments than those who find out-groups less threatening.

Finally, I control for subject demographic characteristics based on ethnicity, gender, age, and education levels.[10] I also evaluated controls for unemployment, urban–rural residence, ethnic heterogeneity of the population based on current and prewar estimates, war-severity measures based on the percentage of the prewar population killed in the sampling region, the presence of peacekeeping forces, and ran regressions using multilevel fixed effects with robust standard errors clustered alternately on sampling locations, dates, and experimental sessions. These considerations added little to the substantive interpretation of the models presented here and extended controls have been excluded. Results discussed here are robust to a range of alternate variable codings, controls, and regression techniques.

Table 5 reports results from logit models on incidence of bias and ordered logit models on magnitude of bias in the experiment. In each case, the first model examines subjects paired with an in-group and an out-group recipient, and the second model considers subjects paired with two out-group recipients. Together, the

Table 5. Logit and Ordered Logit Equations for Incidence and Magnitude of Bias among Subjects with In-Group and Out-Group Only Recipients.

	Incidence of bias (logit)		Magnitude of bias (ordered logit)	
	In-group recipient	Out-groups only	In-group recipient	Out-groups only
In-group ties	.464*** (.178)		.515*** (.172)	
Out-group threat	.668*** (.145)	.632*** (.202)	.724*** (.138)	.614*** (.192)
Bosniak subject	−.075 (.253)	.411 (.392)	−.064 (.240)	.438 (.379)
Croat subject	−.071 (.264)	.490 (.406)	.034 (.250)	.544 (.396)
Female Subject	.171 (.211)	−.579 (.316)	.098 (.200)	−.417 (.305)
Age	−.010 (.008)	.022 (.012)	−.008 (.008)	.015 (.011)
Education	.282 (.150)	.402 (.245)	.261 (.144)	.331 (.233)
Intercept 1	−3.718 (.774)	−4.340 (1.125)	3.977 (.759)	3.939 (1.050)
Intercept 2			4.617 (.767)	4.468 (1.060)
Intercept 3			5.260 (.776)	4.900 (1.682)
Intercept 4			5.606 (.783)	5.195 (1.075)
Intercept 5			5.964 (.790)	5.851 (1.094)
Log likelihood	−267.750	−121.861	−499.605	−223.909
Adj. R^2	.09	.08	.06	.04
N	451	215	451	215

***Significant at $p \leq .010$.

models show that subjects who have strong attachments to their ethnicity and feel threatened by out-groups are more likely to discriminate in the experiment. Among the demographic control variables, education has an increasing effect on propensity for bias but not the magnitude of bias. This observation is remarkable because if highly educated people are more ethnically biased than the average citizen, this could help explain the problem of ethnic polarization, division, and gridlock among political elites in Bosnia despite an otherwise reconcilable polity. For more discussion on effects of education, see the online Supplemental Appendix.

Overall, non-egalitarian distributions in the experiment can be accounted for by a combination of in-group and out-group ethnic effects. Subjects who have stronger ties to their ethnic group are more likely to reward co-ethnics, while subjects who feel threatened by other ethnic groups are more likely to bias against out-groups. The final part of the analysis considers whether egalitarian distributions are motivated by a norm of fairness.

Accounting for Fairness

To what extent are subjects who split the money evenly in the experiment motivated by a norm of fairness? After all, egalitarian divisions might simply be an efficient

Table 6. Logit and Ordered Logit Equations for Perceived Fairness of Other Ethnic Groups.

	Fairness of other ethnic groups in general (logit) out-groups	Fairness of ethnic Serbs, Croats, Bosniaks (ordered logit)		
		Serbs	Croats	Bosniaks
Egalitarians	.507*** (.174)	.699*** (.185)	.604*** (.183)	.521*** (.188)
Bosnjak subject	.200 (.197)	.310 (.177)	.096 (.173)	
Croat subject	.404 (.212)			.028 (.181)
Female subject	.038 (.167)	−.194 (.175)	−.175 (.173)	−.290 (.183)
Age	−.009 (.006)	.015 (.007)	.017 (.007)	.017 (.006)
Education	.220 (.114)	−.435 (.123)	−.140 (.124)	−.127 (.130)
Intercept 1	−.495 (.473)	−1.137 (.497)	−.613 (.490)	−.506 (.510)
Intercept 2		.236 (.496)	.904 (.491)	.807 (.511)
Intercept 3		2.857 (.526)	4.190 (.562)	3.439 (.554)
Log likelihood	−411.800	−542.003	−539.248	−512.464
Adj. R^2	.02	.03	.02	.02
N	623	452	467	421

***Significant at $p \leq .010$.

decision-making heuristic that has little to do with underlying feelings about fairness toward others. What then is fairness and what is fair? In the context of this experiment, fairness is a willingness to engage in equitable treatment toward strangers across ethnicity, of not taking advantage of one's position as a dictator to reward co-ethnics and punish other groups. To test assumptions about fairness motivations, the study again turns to multivariate models comparing attitudes about fairness to experimental behavior.

This time, experimental behavior is treated as an independent variable to predict how subjects gauge fairness in others. Subjects were asked in the survey whether they think people of different ethnicity would take advantage of them if given the chance or treat them fairly. If fairness norms motivate egalitarian distributions in the experiments, then survey attitudes about fairness should be correlated with experimental behavior. Table 6 indicates the results of multivariate analysis on four different dependent variables measuring perceptions of fairness in others. The first is a general measure of fairness across ethnicity followed by a separate measure of fairness by each ethnic group. In the first model in Table 6, the dependent variable is a dummy variable coded 0 if subjects believe other ethnic groups would take advantage of them and 1 if they believe they would be treated fairly. The question reads "Generally speaking, do you think that people of other ethnicity in Bosnia would try to take advantage of you if they got the chance or would they try to be fair?"[11] In the first model, all subjects are included in the analysis with controls for ethnicity, gender, and education. The coefficients in the first model are estimated by logit regression.

In the remaining three models, the dependent variable has four categories coded 1 through 4 with increasing expectation of fairness for a specific ethnic group. In each case, the question reads "Generally speaking, do you think [Serbs, Croats, Bosniaks] would try to take advantage of you if given the chance?"[12] In each model, co-ethnic subjects are excluded. Hence, Serb subjects are excluded from the second model on expectations of fairness from Serbs. It only considers the views of the two out-groups, in this case, Croat and Bosniak subjects. Coefficients in these three models are estimated by ordered logit regression. Controls for subject ethnicity, age, gender, and education are included in all models. The key explanatory variable here is "egalitarians," a dummy variable coded 1 if the subject divided money equally in the experiment and coded 0 if an unequal division.

Table 6 indicates that egalitarians are more likely to see other ethnic groups as fair while subjects who show a bias in their experimental decisions are more likely to anticipate others taking advantage of them. Positive effects of age on expectations of fairness and negative effects of education are observed, but they are not consistent across all four models. Instead, egalitarian giving in the dictator game is the strongest predictor of expectations of fairness from others, implying that fairness norms are a key motivator of egalitarian allocations and not simply efficiency or inequality aversion. Subjects who expect fairness from other ethnic groups make fair allocations. Subjects who expect others to take advantage of them are more likely to be biased themselves.

Discussion

This adaptation of the standard dictator game provides a novel way of evaluating social norms across ethnicity. The experiment suggests that most Bosnians maintain a strong sense of fairness toward others, regardless of ethnicity and/or gender. The analysis has also shown that experimental biases correspond well to attitudinal biases elicited from the survey. The non-costly adaptation of the dictator game has important implications as well. In a standard dictator game, subjects demonstrate pro-social or other regarding behavior in the amount they are willing to give up to another person. Rewarding co-ethnics over others comes at a personal cost. In this version, it costs nothing to the dictator to bias the distribution in favor of a co-ethnic or to punish an unfavorable out-group. Hence, this experiment should facilitate parochialism more easily than in the standard dictator game. Instead, even under the most encouraging circumstances (anonymity and no-cost), two-thirds of subjects demonstrated a basic norm of fairness by equitably dividing the money.

Dictator games and other behavior experiments can be very sensitive to aspects of the research design (Levitt and List 2007; List 2007). On one hand, this is an advantage because it allows for creativity in designing treatments. However, it also means that behavioral inferences should be drawn within the context of experimental protocols. For example, if the experimenter were to intentionally provoke ethnic bias in the treatment, then it is possible that egalitarian distributions would drop. Many

accounts of the Bosnian conflict have argued that nationalist elites were very effective at exploiting ethnic tensions as Yugoslavia disintegrated (Glenny 1992; Woodward 1995; Mueller 2000; Petersen 2002; Gagnon 2004). This experiment avoids those types of provocations.[13] It shows that in the absence of triggering bias, subjects display a strong norm of fairness in allocating across ethnicity. Of course, one of the major challenges of postconflict societies is to restrain those forces mobilizing fear and resentment, destabilizing cooperation, and reviving conflict among former rivals. In an experimental setting, the results are encouraging.[14] Most subjects refrain from parochial ethnic favoritism or arbitrary punishment of ethnic others. Norms of fair and equal treatment should be vital to multiethnic institution building and broader conflict resolution. This lends support to the view that Bosnia's current political woes are more attributable to institutional failures and entrepreneurial elites rather than to widespread intolerance or parochialism in the population. People are willing to engage fairly with ethnic others in social exchanges, but institutional constraints prevent pro-social behavior from evolving into wider political or economic cooperation. In an environment freeing of those constraints, the experiment shows potential for intergroup cooperation in the way people treat each other behaviorally—norms of fairness supersede incentives for parochialism.

Finally, what implications might these experimental findings have for other cases of civil conflict? Here, I would urge others to replicate this simple design. It is not as cumbersome in the field as the trust, ultimatum, or public goods game, potentially less costly to the researcher than a standard dictator game, and does not put subjects in harm's way by requiring them to directly interact with former adversaries. It would be helpful to compare the results in Bosnia to cases where prewar foundations for cooperation were evident as well as those where they were not, assigning both co-ethnic and interethnic treatments. Even in cases where all combatants are ostensibly intra-ethnic, the treatment could be based on some other readily identifiable trait, characteristic, or affiliation (region, kinship, political affiliation) that distinguishes rivals, insurgents, or combatants in a civil conflict (See Cassar, Grosjean, and Whitt 2011). Cross-border treatments, for example, could also tap into the social dimensions of rivalry in international relations (Diehl and Goertz 2000). If there are differential effects of violent conflict on foundational norms for social cooperation, whether increasing, undermining, or having measurable no effect, they should be evident in the way people treat one another—as demonstrated by a simple behavioral experiment.

Conclusion

This study demonstrates the resilience of a norm of fairness across ethnicity after violence using a behavioral experiment. In the context of the experiment, to be fair means equal treatment across ethnicity, and to be unfair (or foul) means bias in favor of one's ethnic group over others. In postwar Bosnia, subjects display a remarkable

willingness for fairness in the treatment of ethnic others. Despite a history of severe ethnic violence and divisive institutional polarization in the postwar period, the experiment suggests that an important social norm has reemerged. Fairness in impersonal exchanges should be vital for functional political institutions, market economies, and civil societies. Hence, the results are promising about foundations for multiethnic cooperation after violence. Overall, this non-costly adaptation of the dictator game appears to be a useful tool for gauging social norms across ethnicity in contexts where self-interest is not readily apparent but where concerns of fairness or distributive justice might be critical in many types of real-world circumstances.

Acknowledgment

The author would like to thank Rick Wilson and the anonymous reviewers for thoughtful comments and advice. Any mistakes or omissions are of the author's.

Author's Note

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/.

Declaration of Conflicting Interests

Sam Whitt was an employee of the U.S. Department of State during the review process for this manuscript. The views expressed in this article are those of the author, and do not necessarily reflect those of the U.S. Department of State or the U.S. Government.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship and/or publication of this article: This research was supported by a doctoral dissertation improvement grant from the National Science Foundation (#0318389), the Fulbright-Hays program, and a short term travel grant from IREX.

Notes

1. Includes the size of the action space, whether games are repeated or single shot, double-blindedness, take options, multiple recipients, use of real money, group decision making (see Engel 2010, table 1). Although Engel (2010) examines aspects of social distance, the analysis does not consider effects of race or ethnicity on dictator giving specifically.
2. One drawback of running dictator games is that it is a potentially expensive undertaking in a large-*N* study when every participant has the opportunity to walk away with 5 to 10 dollars. This "non-costly" adaptation makes the experiment much more conducive to large-*N* field research.
3. (1) Random selection of sampling point using map of selected location; (2) random selection of starting point for each sampling point; (3) selection of households using "random route" technique, starting with fifth numbered apartment building or house selecting every fifth entrance; (4) selection of individual respondents (1 per household) using

random selection key (most recent birthday); and (5) respondent completes an initial screening survey. The survey was used to screen subjects by ethnicity, age, gender, education, and urban–rural background in order to compare how the random sampling process matched with population estimates. Generally, the selection process yielded samples that were comparable to the location population. If needed, population parameters were met through oversampling. Subjects were recruited less than one week prior to the experimental session.

4. The Bosnian population was stratified first by entity (Serb Republic, Federation, Brčko District) and then by canton in the Federation, with samples drawn from eight of the ten cantons. In the Serb Republic, the population was stratified by geographic region (Eastern RS and Western RS). Primary sampling units (PSUs) were selected using a probability proportion to size method for urban and then rural locations within the same municipality. Random routes were determined by dividing the PSU into equal grids and selecting starting points randomly from within each grid. No more than five participants were drawn from the same random route starting point within each grid. Sampling was done in the following areas: Sarajevo, Mostar, Tuzla, Banja Luka, Zenica, Travnik, Novi Travnik, Livno, Čapljina, Široki Brijeg, Doboj, Goražde, Prijedor, Pale, Bijeljina, and Brčko.
5. If any bias is caused by administering the survey before the experiments, it is most likely in the direction of increasing ethnic bias. If survey questions elevated a sense of ethnic awareness among subjects, this biases against the main hypothesis about revitalization of pro-social norms after violence.
6. The study was conducted in two waves consisting of thirty experimental group sessions, with 338 participants and fifteen sessions in the September 2003 wave and 343 participants from fifteen sessions in the January 2004 wave. The same sampling process was used in each wave. Some urban areas were sampled in both waves (due to probability proportion to size sample selection), but respondents were sampled from different random routes on the grid map. In each wave, the local recruiters made contact with 390 potential subjects, giving a turn-out rate of 87 percent in September and 88 percent in January.
7. Other measures of the dependent variable are discussed in the Supplementary Online Appendix. Alternate coding of dependent variables does not affect substantive interpretations discussed here.
8. In-group ties of Serbs ($M = 2.06$, SD .62, $N = 216$); In-group ties of Croats ($M = 2.02$, SD .68, $N = 202$); In-group ties of Bosniaks ($M = 2.18$, SD .69, $N = 250$).
9. Bosniak subject threat perception of Serbs ($M = 2.25$, $SD = .86$, $N = 251$) and of Croats ($M = 2.14$, $SD = .83$, $N = 250$). Croat subject threat perception of Bosniaks ($M = 2.24$, $SD = .88$, $N = 201$) and of Serbs ($M = 2.33$, $SD = .87$, $N = 202$). Serb subject threat perception of Bosniaks (M 2.43, $SD = .84$, $N = 217$) and of Croats (M 2.34, $SD = .78$, $N = 217$).
10. I use dummy variables for ethnicity and gender. Age is coded in increasing years. The education variable ranges from 1 = *limited education* to 4 = *higher education* based on responses to the question, "What is the highest level of education that you have received?" Response categories are 1 = *Elementary*, 2 = *Some Secondary School but not completed*, 3 = *Completed Secondary School*, 4 = *Higher Education*.

11. $M = 0.60$, $SD = 0.49$, $N = 623$.
12. Fairness of Serbs ($M = 2.15$, $SD = .91$, $N = 452$); Fairness of Croats ($M = 2.20$, $SD = .84$, $N = 467$); Fairness of Bosniaks ($M = 2.17$, $SD = .90$, $N = 421$).
13. Institutional review board (IRB) approval for this project was granted only after the exclusion of sensitive questions about conflict related violence. Experiments where subjects made decisions with other members of a common group (e.g., trust, ultimatum, and public good experiments) were also excluded because of concern for participant safety in mixed ethnic settings.
14. To what extent is behavior in a simple decision task meaningful for broader social and political problems? 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 in a Supplemental Online Appendix to this article.

References

Abu-Nimer, Mohammad, ed. 2001. *Justice and Coexistence: Theory and Practice*. Oxford, UK: Lexington Books.

Alexander, Marcus, and Fotini Christia. 2011. "Institutionalizing Cooperation: Public Goods Experiments in the Aftermath of Civil War." Working Paper Series No. 09-0005. Weatherhead Center for International Affairs, Harvard University Cambridge, MA.

Axelrod, Robert, and William D. Hamilton. 1981. "The Evolution of Cooperation." *Science* 211:1390–96.

Bahry, Donna, and Rick K. Wilson. 2006. "Confusion or Fairness in the Field? Rejections in the Ultimatum Game under the Strategy Method." *Journal of Economic Behavior & Organization* 60 (1): 37–54.

Bakke, Kristin, Xun Cao, John Oloughlin, and Michael Ward. 2009. "Social Distance in Bosnia-Herzegovina and the North Caucasus Region of Russia: Inter and Intra-ethnic Attitudes and Identities." *Nations and Nationalism* 15 (2): 227–53.

Bar-Simon-Tov, Yaacov, ed. 2004. *From Conflict Resolution to Reconciliation*. New York: Oxford University Press.

Bhavnani, Ravi, and David Baker. 2000. "Localized Ethnic Conflict and Genocide: Accounting for Differences in Rwanda and Burundi." *Journal of Conflict Resolution* 44 (3): 283–306.

Bhavnani, Ravi, and Dan Miodownik. 2009. "Ethnic Polarization, Ethnic Salience, and Civil War." *Journal of Conflict Resolution* 53 (1): 30–49.

Bellows, John, and Edward Miguel. 2009. "War and Collective Action in Sierra Leone." *Journal of Public Economics* 93 (11–12): 1144–57.

Bernhard, Helen, Urs Fischbacher, and Ernst Fehr. 2006. "Parochial Altruism in Humans." *Nature* 442 (24): 912–15.

Blattman, Christopher. 2009. "From Violence to Voting: War and Political Participation in Uganda." *American Political Science Review* 103 (2): 231–47.

Blattman, Christopher, and Edward Miguel. 2010. "Civil War." *Journal of Economic Literature* 48 (1): 3–57.

Bowles, Samuel. 2008. "Conflict: Altruism's Midwife." *Nature* 456: 326–27.

Bose, Sumantra. 2002. *Bosnia after Dayton*. London: Hurst.

Brubaker, Rogers, and David D. Laitin. 1998. "Ethnic and Nationalist Violence." *Annual Review of Sociology* 24 (1): 423–52.

Burg, Steven L. 1999. *The War in Bosnia-Herzegovina: Ethnic Conflict and International Intervention*. New York: M. E. Sharpe.

Burg, Steven L., and Michael L. Berbaum. 1989. "Community, Integration, and Stability in Multinational Yugoslavia." *American Political Science Review* 83 (2): 535–54.

Camerer, Colin F. 2003. *Behavioral Game Theory: Experiments in Strategic Interaction*. New York: Russell Sage Foundation.

Camerer, Colin F., and Ernst Fehr. 2004. "Measuring Social Norms and Preferences Using Experimental Games: A Guide for Social Scientists." In *Foundations for Human Sociality: Economic Experiments and Ethnographic Evidence from Fifteen Small-scale Societies*, edited by Joseph Henrich, Robert Boyd, Samuel Bowles, Colin F. Camerer, Ernst Fehr and Herbert Gintis, 55–95. Oxford, UK: Oxford University Press.

Caspersen, Nina. 2004. "Good Fences Make Good Neighbours? A Comparison of Conflict-Regulation Strategies in Post-war Bosnia." *Journal of Peace Research* 41 (5): 569–88.

Caspersen, Nina. 2008. "Intragroup Divisions in Ethnic Conflicts: From Popular Grievances to Power Struggles." *Nationalism and Ethnic Politics* 14 (2): 239–65.

Cassar, Alessandra, Pauline Grosjean, and Sam Whitt. 2011. "Civil War, Social Capital, and Market Development: Experimental and Survey Evidence on the Negative Consequences of Violence." Accessed on October 9, 2012. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1979972.

Chandler, David. 2000. *Bosnia: Faking Democracy after Dayton*. London, UK: Pluto Press.

Chen, Francis S., Robert Kumsta, and Marcus Heinrichs. 2011. "Oxytocin and Intergroup Relations: Goodwill is not a Fixed Pie." *Proceedings of the National Academy of Sciences* 108 (13): E46.

Chen, Siyan, Norman Loayza, and Marta Reynal-Querol. 2008. "The Aftermath of Civil War. " *The World Bank Economic Review* 22 (1): 63–85.

Choi, Jung-Kyoo, and Samuel Bowles. 2007. "The Coevolution of Parochial Altruism and War." *Science* 318 (5850): 636–40.

Coleman, James S. 1990. *Foundations of Social Theory*. Cambridge, MA: Harvard University Press.

Collier, Paul, Lani Elliot, Håvard Hegre, Anke Hoeffler, Marta Reynal-Querol, and Nicholas Sambanis. 2003. *Breaking the Conflict Trap: Civil War and Development Policy*. Washington DC: The World Bank.

Collier, Paul, and Anke Hoeffler. 2004. "Greed and Grievance in Civil War." *Oxford Economic Papers* 56 (4): 563–95.

Crook, Paul. 1994. *Darwinism, War, and History*. Cambridge: Cambridge University Press.

De Dreu, Carsten, Lindred Greer, Gerben Van Kleef, Shaul Shalvi, and Michel Handgraaf. 2010. "The Neuropeptide Oxytocin Regulates Parochial Altruism in Intergroup Conflict Among Humans." *Science* 328 (5984): 1408–11.

De Dreu, Carsten, Lindred Greer, Gerben Van Kleef, Shaul Shalvi, and Michel Handgraaf. 2011. "Oxytocin Promotes Human Ethnocentrism." *Proceedings of the National Academy of Sciences* 108 (4): 1262–66.

De Figueiredo, Rui J. P., Jr., and Barry Weingast. 1999. "The Rationality of Fear: Political Opportunism and Ethnic Conflict." In *Civil wars, Insecurity, and Intervention*, edited by Barbara Walter and Jack Snyder, 261–303. New York: Columbia University Press.

Diehl, Paul, and Gary Goertz. 2000. *War and Peace in International Rivalry*. Ann Arbor: University of Michigan Press.

Dyrstad, Karin. 2010. "After Civil War: An Empirical Study of Ethnic Intolerance in the Western Balkans." Paper presented at the SGIR 7th Pan-European International Relations Conference, Stockholm, Sweden. September 9–11.

Dyrstad, Karin. 2011. "Does Civil War Breed Authoritarian Values? An Empirical Study of Bosnia-Herzegovina, Kosovo, and Croatia." Paper presented at the 2011 3rd Bi-Annual World International Studies Conference, Porto, Portugal. August 17–20.

Easterly, William. 2001. "Can Institutions Resolve Ethnic Conflict?" *Economic Development and Cultural Change* 49 (4): 687–706.

Eckel, Catherine, and Philip Grossman. 1996. "Altruism in Anonymous Dictator Games." *Games and Economic Behavior* 16 (2): 181–91.

Eckel, Catherine, and Philip Grossman. 1998. "Are Women Less Selfish Than Men: Evidence from Dictator Experiments." *Economic Journal* 108: 726–35.

Elbadawi, Ibrahim, and Nicholas Sambanis. 2002. "How Much War Will We See? Explaining the Prevalence of Civil War." *Journal of Conflict Resolution* 46: 307–34.

Engel, Christoph. 2010. "Dictator Games: A Meta Study." http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1568732.Accessed on October 9, 2012.

Fearon, James D. 1998. "Commitment Problems and the Spread of Ethnic Conflict." In *The International Spread of Ethnic Conflict: Fear, Diffusion, and Escalation*, edited by David Lake and Donald Rothchild. Princeton, NJ: Princeton University Press.

Fearon, James D. 2004. "Why do Some Civil Wars Last so Much Longer than Others?" *Journal of Peace Research* 41 (3): 275–301.

Fearon, James D., and David Laitin. 1996. "Explaining Interethnic Cooperation." *American Political Science Review* 90 (4): 715–35.

Fearon, James D., and David Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97 (1): 75–90.

Fearon, James, Kimuli Kasara, and David Laitin. 2007. "Ethnic Minority Rule and Civil War Onset." *American Political Science Review* 101 (1): 187–93.

Fershtman, Chaim, and Uri A. Gneezy. 2001. "Discrimination in a Segmented Society: An Experimental Approach." *Quarterly Journal of Economics* 116 (1): 351–77.

Forsythe, Robert, Joel L. Horowitz, N. E. Savin, and Martin Sefton. 1994. "Fairness in Simple Bargaining Experiments." *Games and Economic Behavior* 6: 347–69.

Friedman, Francine. 2004. *Bosnia and Herzegovina: A Polity on the Brink*. New York: Routledge.

Fukuyama, Francis. 2011. *The Origins of Political Order*. New York: Farrar, Straus and Giroux.

Gagnon, V. P.Jr. 2004. *The Myth of Ethnic War: Serbia and Croatia in the 1990s*. Ithaca, NY: Cornell University Press.

Gambetta, Diego, ed. 1988. *Trust: Making and Breaking Cooperative Relations*. New York: Blackwell.

Gibson, James L. 2002. "Truth, Justice, and Reconciliation: Judging the Fairness of Amnesty in South Africa." *American Journal of Political Science* 46 (3): 540–56.

Gibson, James L. 2004. *Overcoming Apartheid: Can Truth Reconcile a Divided Nation?* New York: Russell Sage Foundation.

Gil-White, Francisco J. 2004. "Ultimatum Game with an Ethnicity Manipulation." In *Foundations of Human Sociality: Economic Experiments and Ethnographic Evidence from Fifteen Small-scale Societies*, edited by Joseph Henrich, Robert Boyd, Samuel Bowles, Colin Camerer, Ernst Fehr and Herbert Gintis, 260–304. Oxford, UK: Oxford University Press.

Glaeser, Edward L., David Laibson, Jose A. Scheinkman, and Christine Soutter. 2000. "Measuring Trust." *Quarterly Journal of Economics* 115 (3): 811–46.

Glenny, Misha. 1992. *The Fall of Yugoslavia: The Third Balkan war*. London: Penguin Press.

Goldstein, Joshua. 1987. "The Emperor's New Genes: Sociobiology and War." *International Studies Quarterly* 31 (1): 33–43.

Greif, Avner. 2006. *Institutions and the Path to the Modern Economy*. Cambridge: Cambridge University Press.

Habyarima, James, Macartan Humphreys, Daniel N. Posner, and Jeremy M. Weinstein. 2007. "Why Does Ethnicity Undermine Public Good Provision?" *American Political Science Review* 101 (4): 709–25.

Habyarima, James, Macartan Humphreys, Daniel N. Posner, and Jeremy M. Weinstein. 2008. "Is Ethnic Conflict Inevitable?" *Foreign Affairs* 87 (4): 138–41.

Habyarima, James, Macartan Humphreys, Daniel N. Posner, and Jeremy M. Weinstein. 2009. *Coethnicity: Diversity and Dilemmas of Collective Action*. New York: Russell Sage Foundation.

Håkansson, Peter, and Fredrik Sjöholm. 2007. "Who Do You Trust? Ethnicity and Trust in Bosnia-Herzegovina." *Europe-Asia Studies* 59 (6): 961–76.

Hale, Henry. 2004. "Divided We Stand: Institutional Sources of Ethnofederal State Survival and Collapse." *World Politics* 56 (2): 165–93.

Hardin, Russell. 1995. *All For One: The Logic of Group Conflict*. Princeton, NJ: Princeton University Press.

Hechter, Michael, and Klaus-Dieter Opp. 2001. *Social Norms*. New York: Russell Sage Foundation.

Hegre, Håvard. 2004. "The Duration and Termination of Civil War." *Journal of Peace Research* 41 (3): 243–52.

Hegre, Håvard, and Nicholas Sambanis. 2006. "Sensitivity Analysis of the Empirical Literature on Civil War Onset." *Journal of Conflict Resolution* 50: 508–35.

Henrich, Joseph, Robert Boyd, Samuel Bowles, Colin Camerer, Ernst Fehr, Herbert Gintis, and Richard McElreath. 2001. "In Search of Homo Economics: Behavioral Experiments in 15 Small-scale Societies." *The American Economic Review* 91 (2): 73–78.

Henrich, Joseph, Robert Boyd, Samuel Bowles, Colin Camerer, Ernst Fehr, Herbert Gintis, and Richard McElreath. 2004. *Foundations of Human Sociality: Economic Experiments and Ethnographic Evidence from Fifteen Small-scale Societies*. Oxford, UK: Oxford University Press.

Hodson, Randy, Dusko Sekulic, and Garth Massey. 1994. "National Intolerance in the Former Yugoslavia." *American Journal of Sociology* 99 (6): 1534–58.

Hoffman, Elizabeth, Kevin McCabe, and Vernon Smith. 1996. "Social Distance and Other Regarding Behavior in Anonymous Dictator Games." *American Economic Review* 86 (3): 653–60.

Horowitz, Donald. 1985. *Ethnic Groups in Conflict*. Berkeley: University of California Press.

Humphreys, Macartan, and Jeremey M. Weinstein. 2009. "Field Experiments and the Political Economy of Development." *Annual Review of Political Science* 12 (1): 367–78.

Jackman, Robert W., and Ross A. Miller. 1998. "Social Capital and Politics." *Annual Review of Political Science* 1: 47–73.

Jeffrey, Alex. 2007. "The Geopolitical Framing of Localized Struggles: NGOs in Bosnia and Herzegovina." *Development and Change* 38 (2): 251–74.

Kahneman, Daniel, Jack L. Knetsch, and Richard H. Thaler. 1986. "Fairness and the Assumptions of Economics." *Journal of Business* 59 (4): 285–300.

Kalyvas, Stathys. 2006. *The Logic of Violence in Civil War*. Cambridge: Cambridge University Press.

Kaufman, Chaim. 1996. "Possible and Impossible Solutions to Civil Wars." *International Security* 20 (4): 136–75.

Kaufman, Chaim. 1998. "When All Else Fails: Ethnic Population Transfers and Partitions in the Twentieth Century." *International Security* 23 (2): 120–56.

Kaufman, Stuart. 2001. *Modern Hatreds: The Symbolic Politics of Ethnic War*. Ithaca, NY: Cornell University Press.

Kaufman, Stuart. 2006a. "Symbolic Politics or Rational Choice? Testing Theories of Extreme Ethnic Violence." *International Security* 30 (4): 45–86.

Kaufman, Stuart. 2006b. "Escaping the Symbolic Politics Trap: Reconciliation Initiatives and Conflict Resolution in Ethnic Wars." *Journal of Peace Research* 43 (2): 201–18.

Knight, Jack. 1992. *Institutions and Social Conflict*. Cambridge: Cambridge University Press.

Kumar, Radha. 1997. "The Troubled History of Partition." *Foreign Affairs* 76 (1): 22–34.

Kurzban, Robert, John Tooby, and Leda Cosmides. 2001. "Can Race Be Erased? Coalitional Computation and Social Categorization." *Proceedings of the National Academy of Sciences* 98 (26): 15387–392.

Lake, David, and Donald Rothchild. 1996. "Containing Fear: The Origins and Management of Ethnic Conflict." *International Security* 21 (2): 41–75.

Lake, David, and Donald Rothchild. 2005. "Territorial Decentralization and Civil War Settlements." In *Sustainable Peace: Democracy and Power after Civil Wars*, edited by Philip Roeder and Donald Rothchild, 109–132. Ithaca, NY: Cornell University Press.

Levitt, Steven D., and John A. List. 2007. "What Do Laboratory Experiments Measuring Social Preferences Reveal about the Real World?" *Journal of Economic Perspectives* 21 (2): 153–74.

List, John. 2007. "On the Interpretation of Giving in Dictator Games." *Journal of Political Economy* 115 (3): 482–93.

Maoz, Ifat. 2000. "An Experiment with Peace: Reconciliation Aimed Workshops with Jewish-Israeli and Palestinian Youth." *Journal of Peace Research* 37 (6): 721–36.

McMahon, Patrice. 2004. "Rebuilding Bosnia: A Model to Emulate or to Avoid?" *Political Science Quarterly* 119 (4): 569–94.

McMahon, Patrice, and Jon Western. 2009. "The Death of Dayton: How to Stop Bosnia from Falling Apart." *Foreign Affairs* 88 (5): 69–83.

Montalvo, Jose, and Marta Reynal-Querol. 2005. "Ethnic Polarization, Ethnic Conflict, and Civil Wars." *American Economic Review* 95 (3): 796–816.

Mueller, John. 2000. "The Banality of 'Ethnic War'." *International Security* 25 (1): 42–70.

Muller, Jerry. 2008. "Us and Them." *Foreign Affairs* 87 (2): 18–35.

North, Douglass. 1991. "Institutions." *Journal of Economic Perspectives* 5 (1): 97–112.

North, Douglass, John Joseph Wallis, and Barry Weingast. 2009. *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History*. Cambridge: Cambridge University Press.

Nunn, Nathan, and Leonard Wantchekon. 2011. "The Slave Trade and the Origins of Mistrust in Africa." *American Economic Review* 101 (7): 3221–52.

O'Loughlin, John, and Gearoid Tuathail. 2009. "Accounting for Separatist Sentiment in Bosnia-Herzegovina and the North Caucasus of Russia: A Comparative Analysis of Survey Responses." *Ethnic and Racial Studies* 32 (4): 591–615.

Ostrom, Elinor. 1986. "An Agenda for the Study of Institutions." *Public Choice* 48: 3–25.

Ostrom, Elinor. 2000. "Collective Action and the Evolution of Social Norms." *Journal of Economic Perspectives* 14 (3): 137–58.

Petersen, Roger D. 2002. *Understanding Ethnic Violence: Fear, Hatred, and Resentment in Twentieth-century Eastern Europe*. Cambridge: Cambridge University Press.

Pickering, Paula. 2006. "Generating Social Capital for Bridging Ethnic Divisions in the Balkans: Case Studies of Two Bosniak Cities." *Ethnic and Racial Studies* 29 (1): 79–103.

Posen, Barry. 1993. "The Security Dilemma and Ethnic Conflict." *Survival* 35 (1): 27–47.

Posner, Daniel. 2004. "The Political Salience of Cultural Difference: Why Chewas and Tumbukas Are Allies in Zambia and Adversaries in Malawi?" *American Political Science Review* 98 (4): 529–45.

Putnam, Robert. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.

Rawls, John. 1971. *A Theory of Justice*. Cambridge, MA: Harvard University Press.

Rawls, John. 2001. *Justice as Fairness: A Restatement*. Cambridge, MA: Harvard University Press.

Rigby, Andrew. 2001. *Justice and Reconciliation after the Violence*. London: Lynne Reinner.

Roth, Alvin E. 1995. "Bargaining Experiments." In *Handbook of Experimental Economics*, edited by John H. Kagel and Alvin E. Roth, 253–348. Princeton, NJ: Princeton University Press.

Saideman, Stephen M. 1998. "Is Pandora's Box Half-Empty or Half-Full?" In *The International Spread of Ethnic Conflict: Fear, Diffusion, Escalation*, edited by David A. Lake and Donald Rothchild, 127–50. Princeton, NJ: Princeton University Press.

Sambanis, Nicholas. 2001. "Do Ethnic and Non-ethnic Civil Wars Have the Same Causes? A Theoretical and Empirical Inquiry." *Journal of Conflict Resolution* 45 (3): 259–82.

Sekulic, Dusko, Garth Massey, and Randy Hodson. 1994. "Who Were the Yugoslavs? Failed Sources of a Common Identity in the Former Yugoslavia." *American Sociological Review* 59 (1): 83–97.

Sen, Amartya. 2009. *The Idea of Justice*. Cambridge, MA: Harvard University Press.

Shaw, R. Paul, and Yuwa Wong. 1987. "Ethnic Mobilization and the Seeds of Warfare: An Evolutionary Perspective." *International Studies Quarterly* 31 (1): 5–31.

Snyder, Jack, and Robert Jervis. 1999. "Civil War and the Security Dilemma." In *Civil Wars, Insecurity, and Intervention*, edited by Barbara Walter and Jack Snyder, 15–37. New York: Columbia University Press.

Somer, Murat 2001. "Cascades of Ethnic Polarization: Evidence from Yugoslavia." *Annals of the American Academy of Political and Social Science* 457 (1): 127–51.

Staub, Ervin. 2000. "Genocide and Mass Killing: Origins, Prevention, Healing, and Reconciliation." *Political Psychology* 21 (2): 367–82.

Staub, Ervin, Laurie Anne Pearlman, Alexandra Gubin, and Athanase Hagengimana. 2005. "Healing, Reconciliation, Forgiving, and the Prevention of Violence after Genocide or Mass Killing: An Intervention and its Experimental Evaluation in Rwanda." *Journal of Social and Clinical Psychology* 24 (3): 297–334.

Thayer, Bradley A. 2004. *Darwin and International Relations: On the Evolutionary Origins of War and Ethnic Conflict*. Lexington: University of Kentucky Press.

Varshney, Ashutosh. 2001. "Ethnic Conflict and Civil Society: India and Beyond." *World Politics* 53 (3): 362–98.

Velikonja, Mitja. 2003. *Religious Separation and Political Intolerance in Bosnia-Herzegovina*. College Station: Texas A&M University Press.

Voors, Marteen, Eleonora Nillesen, Philip Verwimp, Erwin Bulte, Robert Lensink, and Daan van Soest. 2011."Does Conflict affect Preferences? Results from Field Experiments in Burundi." *American Economic Review* 96 (2): 394–99.

Walter, Barbara. 2004. "Does Conflict Beget Conflict? Explaining Recurring Civil War." *Journal of Peace Research* 41 (3): 371–88.

Weingast, Barry R. 1998. "Constructing Trust: The Political and Economic Roots of Ethnic and Regional Conflict." In *Institutions and Social Order*, edited by Karol Soltan, Eric M. Uslaner and Virginia Haufler, 163–200. Ann Arbor: University of Michigan Press.

Whitt, Sam. 2010. "Institutions and Ethnic Trust: Evidence from Bosnia." *Europe-Asia Studies* 62 (2): 271–92.

Whitt, Sam, and Rick Wilson. 2007. "The Dictator Game, Fairness and Ethnicity in Postwar Bosnia." *American Journal of Political Science* 51 (3): 655–68.

Wood, Elisabeth J. 2008. "The Social Processes of Civil War: The Wartime Transformation of Social Networks." *Annual Review of Political Science* 11 (1): 539–61.

Woodward, Susan. 1995. *Balkan Tragedy: Chaos and Dissolution after the Cold War*. Washington, DC: Brookings Institution.

Woodward, Susan. 1999. "How Not to End a Civil War." In *Civil Wars, Insecurity, and Intervention*, edited by Barbara Walter and Jack Snyder, 73–115. New York: Columbia University Press.

Zak, Paul, Robert Kurzban, and William T. Matzner. 2005. "Oxytocin is Associated with Human Trustworthiness." *Hormones and Behavior* 48 (2005): 522–27.