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## Beyond Keeping the Peace: Can Peacekeepers Reduce Ethnic Divisions After Violence?

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# Beyond Keeping the Peace: Can Peacekeepers Reduce Ethnic Divisions After Violence?

## Abstract

Existing research suggests that international peacekeeping contributes to conflict resolution and helps sustain peace, often in locations with hostile ethnic divisions. However, it is unclear whether the presence of peacekeepers actually reduces underlying ethnocentric views and parochial behaviors that sustain those divisions. We examine the effects of NATO peacekeeper deployments on ethnocentrism in postwar Bosnia. While peacekeepers were not randomly deployed in Bosnia, we find that highly ethnocentric attitudes were common across Bosnia at the onset of peacekeeper deployments, reducing endogeneity concerns. To measure ethnocentrism, we employ a variety of survey instruments as well as a behavioral experiment (the dictator game) with ethnic treatments across time. We find that regions with peacekeepers exhibit lower levels of ethnocentrism in comparison to regions without peacekeepers, and this effect persists even after peacekeepers have departed. The peacekeeping effect is also robust to a sub-sample of ethnic Bosnian Serbs, suggesting that peacekeeper deployments can have positive effects on diminishing ethnocentrism, even when local communities are especially hostile to their presence. Our results speak to the potential long-term role of peacekeepers in reducing tensions among groups in conflict.

## Keywords

Peacekeeping, Bosnia, Ethnocentrism

## Disciplines

Peace and Conflict Studies | Political Science

## Beyond Keeping the Peace: Can Peacekeepers Reduce Ethnic Divisions after Violence?

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### **Abstract**

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### Abstract

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## Introduction

How can international peacekeepers promote peace in divided societies? We consider how peacekeepers might play a positive role in reducing war-time ethnocentric divisions, building foundations for long-term positive peace (Galtung 1969). Theoretically, we reason that ethnocentrism encourages security dilemmas that can lead to recurrent tensions and conflict among groups (Posen 1993). We argue that peacekeepers could reduce ethnocentrism through a combination of informational and reputational effects that reduce fears and uncertainty and build empathy over time (Kuran 1998, Pettigrew and Tropp 2008, Mironova and Whitt 2017). In the case of Bosnia and Herzegovina (hereafter Bosnia), we examine how NATO peacekeeping forces have reduced parochial ethnocentrism among ethnic Bosniaks, Croats, and Serbs. To measure ethnocentrism, we employ a dictator game lab-in-the-field experiment with in-group and out-group treatments. We conducted the dictator experiment in Bosnia in 2003 across locations where peacekeepers are active and present and where they are largely absent. We then conducted a second wave of dictator experiments in 2013 in those same locations. We find that while ethnocentrism has actually increased in Bosnia in the past decade, ethnocentrism is lower in areas where peacekeepers were once active and present. Because peacekeepers are not randomly deployed, we are naturally concerned about endogeneity between peacekeeper deployment and ethnocentric preferences in the population. However, our results are robust to a range of correlates of peacekeeping deployment and to a subsample of ethnic Bosnia Serbs, who were *ex-ante* opposed to the deployment of NATO peacekeeping forces in their communities as well as highly ethnocentric. We find that even where peacekeepers were unwelcomed and unwanted, they appear to have a positive impact on reducing ethnocentrism, even years after

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4 their departure. We conclude by discussing the implications of our findings for the pursuit of  
5  
6 positive peace.  
7

## 8 9 **Literature**

10  
11 At the macro-level, existing research underscores how peacekeeping missions may  
12 increase the duration and durability of peace (Hartzell, Hoddie, and Rothchild 2001; Heldt 2002;  
13  
14 Fortna, 2004a, 2004b; Fortna and Howard 2008; Gilligan and Sergenti 2008; Hegre, Hultman,  
15  
16 Fortna, 2004a, 2004b; Fortna and Howard 2008; Gilligan and Sergenti 2008; Hegre, Hultman,  
17  
18 and Nygard 2010). Third-party involvement in peacekeeping agreements and peacekeeping  
19  
20 missions have also been shown to reduce the likelihood of recurrent civil war (e.g., Hartzell,  
21  
22 Hoddie, and Rothchild 2001; Hartzell and Hoddie 2003, 2007; Hoddie and Hartzell 2005; Walter  
23  
24 1997, 2002, Mattes and Savun 2009; Joshi and Quinn 2015). Moreover, peacekeeping missions  
25  
26 appear to be more successful when the missions are accompanied by a variety of agreements  
27  
28 between groups in conflict, such as economic and institutional reforms (Doyle and Sambanis  
29  
30 2000, 2006). The involvement of civil society groups in peace agreements can also increase the  
31  
32 durability of peace (Nilsson 2012).  
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39 More work, however, needs to be done to understand how peacekeeping missions  
40  
41 promote peace. For example, Allred (2006); Ndulo (2008); Kreps and Wallace (2009); Hultman  
42  
43 (2010); and Ruggeri, Gizelis, and Dorussen (2013) find that operational cultures matter. Hegre,  
44  
45 Hultman, and Nygard (2010) and Hultman, Kathman, and Shannon (2013) show that  
46  
47 peacekeeper effectiveness depends on size and force strength, as well as budget size. Hultman,  
48  
49 Kathman, and Shannon (2014) emphasize the importance of mandates and enforcement  
50  
51 capabilities for peacekeeping success.  
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56 Our research examines the long-term effects of peacekeeping forces at the micro-level,  
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58 where results are often mixed. For example, Humphreys and Weinstein (2007) find little  
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4 evidence that DDR programs were successful in reintegrating former combatants in Sierra  
5 Leone. Autesserre (2010) found that violence persisted or actually grew worse in some  
6 communities following the arrival of peacekeepers in the Democratic Republic of Congo.  
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10  
11 Mvukiyehe and Samii (2009, 2010) find that peacekeeper deployments failed to improve security  
12 in Cote d'Ivoire and Liberia. In Kosovo, Mironova and Whitt (2017) find that peacekeepers can  
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14 have a positive effect on inter-ethnic trust when present, but raise concerns about the  
15 deterioration of trust once they depart.  
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21 Our study considers the long-term effects of the deployment of NATO peacekeeping  
22 forces on reducing ethnocentrism in Bosnia. Understanding ethnocentrism at the micro-level is  
23 important because of the ongoing debate about the role of ethnic cleavages in the scholarship on  
24 civil war and violence at the intra-state and sub-state level (Easterly and Levine 1997; Reynal-  
25 Querol 2002; Fearon and Laitin 2003; Collier and Hoefler 2004; Cederman and Girardin 2007;  
26  
27 Cederman et. al. 2010; Sambanis and Shayo 2013; Denny and Walter 2014; Bosker and de Ree  
28 2014; Cederman et al. 2016; Toft 2017). Our focus on long-term peacebuilding and  
29 ethnocentrism also contributes to existing studies by developing a more comprehensive  
30 understanding of the success of peacekeeping missions in preventing ethnic conflict (Posen  
31 1993; Lake and Rothschild 1996; Sisk 1996; Walter 1997; Kimmel, 1998; Doyle and Sambanis  
32 2000, 2006; Sisk 2009; Toft 2009).  
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## 48 **Theory**

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50 Can peacekeeping forces help reduce tensions in divided societies? We consider the  
51 plausible effect of peacekeeping forces on reducing tensions where parochial ethnic cleavages  
52 were an important fault line in the conflict. Specifically, we explore how peacekeepers can help  
53 promote broad goals of positive peace and peacebuilding after violence (Galtung 1969; Boutros-  
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4 Ghali 1995; Kimmel 1998). Kimmel (1998: 16) conceptualizes peacebuilding as “promoting  
5  
6 understanding and collaboration among a variety of individuals and groups” where  
7  
8 peacebuilding “reinforces positive cultural identities and promotes cultural understanding”.  
9  
10  
11 Galtung (1964: 2) conceives of positive peace as “the integration of human society” where  
12  
13 individuals overcome in-group/out-group parochial divisions to engage one another  
14  
15 cooperatively. The shift in focus from negative peace (the absence of violence) to peacebuilding  
16  
17 and positive peace demands an examination of the impact of peacekeepers on how individuals  
18  
19 think and act toward their own in-group relative to other conflict-related out-groups. A large  
20  
21 body of research in social psychology underscores how groups with exclusionary identities are  
22  
23 prone to conflict (LeVine and Campbell 1972; Tajfel and Turner 1979; meta-analysis by Riek,  
24  
25 Mania, and Gaertner 2006; Lake 2017). The persistence of ethnocentrism could be an important  
26  
27 metric of positive peace, partially signaling one’s unwillingness to move beyond the divisions in  
28  
29 society that exacerbate conflict. If citizens remain committed to ethnocentric social and political  
30  
31 divisions, then the goal of lasting positive peace is hindered.  
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39 How might peacekeeping forces encourage positive peace? Our theoretical framework is  
40  
41 derived from earlier work by Mironova and Whitt (2017). We believe that peacekeeping could  
42  
43 provide an important institutional mechanism to reduce fears and uncertainties that draw groups  
44  
45 into conflict (Posen 1993; Petersen 2002). A large body of research emphasizes the importance  
46  
47 of better institutions to sustainable peace (Sambanis 2000; Habyarimana et al. 2008).<sup>1</sup> At the  
48  
49 same time, post-war societies are often plagued by failed, weak, and divisive institutions (Collier  
50  
51 and Hoeffler 1998). In the absence of credible institutions, ethnic groups may still be able to  
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56 <sup>1</sup> Scholars are divided on which types of institutional arrangements (ex. consociationalism,  
57  
58 ethnofederalism, decentralization) are most effective for reducing tensions in postwar societies  
59  
60 (Lijphart 1969; Sisk 1996; Roeder 2009; Brancati 2006; Hale 2008; Wolff 2009). Other scholars  
61  
62 also argue that partition may be the only solution to managing ethnic tensions after violence  
63  
64 (Mearsheimer and Pape 1993; Kaufman 1998; Downes 2004).  
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4 sustain peace through self-policing, but this is considered an unstable solution due to  
5  
6 commitment problems and security dilemmas (Fearon and Laitin 1996; Posen 1993).  
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8 Peacekeeping could provide an important exogenous institution to reduce security dilemmas and  
9  
10 help groups better self-police, with peacekeepers serving as monitoring and enforcement agents  
11  
12 on the ground. We test the following hypothesis:  
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15  
16 *Hypothesis: The presence of peacekeeping forces reduces ethnocentrism.*  
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19 In terms of mechanisms, we argue that peacekeepers could be critical to facilitating inter-  
20  
21 group contact, which in turn, reduces ethnocentrism. While a vast literature shows how inter-  
22  
23 group contact can reduce fears, uncertainties, and prejudices against out-groups (Allport 1954,  
24  
25 meta-analysis by Pettigrew and Tropp 2006, 2008; Hooghe and Quintelier 2013), less is known  
26  
27 about the effects of inter-group contact in the aftermath of violence, where groups may have  
28  
29 strong incentives to self-segregate out of safety and security concerns (though see Mironova and  
30  
31 Whitt 2014 and Scacco and Warren 2018).  
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35 To promote inter-group contact, we believe peacekeepers could play an important  
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37 informational role in facilitating contact by signaling what is acceptable behavior and a  
38  
39 reputational role due to their monitoring and enforcement of cooperative norms and standards. In  
40  
41 this sense, they work to deter potential opportunistic “spoilers” of the peace (Fearon and Laitin  
42  
43 1996; Stedman, 1997; Doyle and Sambanis, 2006; Greenhill and Major, 2007; Blaydes and De  
44  
45 Maio 2010). Through their ability to monitor and enforce cooperative norms of behavior and  
46  
47 deter opportunism, the presence of peacekeepers reduces fears and uncertainties that prevent  
48  
49 groups from engaging one another, keeping them parochially divided.  
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54 We also acknowledge that peacekeepers have multiple, complex mandates, and may not  
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56 have the capacity to police every instance of opportunism and transgression by members of rival  
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4 groups. However, we argue that peacekeeper actions could have a cascading effect on reducing  
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6 ethnocentrism over time if and when they credibly commit to monitoring and policing individual  
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8 and group behavior. Kuran (1998) and Kuran and Sunstein (1999) identify how informational  
9  
10 and reputational cascades can affect social norms and behavior in a range of contexts, including  
11  
12 the transformation of ethnic norms. Mironova and Whitt (2017) illustrate with lab experiments  
13  
14 how informational and reputational effects of third-party monitoring and enforcement can reduce  
15  
16 ethnocentrism in a real-world peacekeeping environment. Peacekeepers reinforce norms of  
17  
18 positive peace by helping ethnic groups self-police, deter entrepreneurial spoilers, and signaling  
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20 credible commitments to monitor and enforce cooperative individual and group behavior. Those  
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22 signals could have cascading effects on reducing ethnocentrism over time.  
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29 In some cases, however, peacekeeping forces are not wanted or welcome and resisted by  
30  
31 local populations. The success of peacekeeping missions in reducing ethnocentrism could be  
32  
33 dependent on perceptions of legitimacy in the eyes of the public (Mersiaides, 2005). Kelmendi  
34  
35 and Radin (2016) indicate that satisfaction with UN peacekeepers in Kosovo depends on the  
36  
37 perception that the UN mission furthers the agenda of one's own ethnic group. Beardsley and  
38  
39 Gleditsch (2015) and Reiter (2015) show that peacekeepers' interventions may increase the  
40  
41 legitimacy of hostile groups that undermine the peace, and Doyle and Sambanis, 2000; Nilsson  
42  
43 and Kovacs (2011); and Hultman, Kathman, and Shannon (2014) stress the importance of  
44  
45 empowering peacekeeping forces to deter would-be spoilers. We consider a hostile population to  
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47 be an especially crucial test of peacekeeper effects to reduce ethnocentrism. Can peacekeepers  
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49 reduce ethnocentrism even where they are unwelcome and unwanted?  
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55 Finally, peacekeeping missions are ephemeral institutions by design. Even if  
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57 peacekeepers are successful at reducing ethnocentrism, what happens once they depart? Gilligan  
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4 and Sergenti (2008) and Costalli (2014) find UN peacekeepers are short-term solutions to  
5  
6 conflict, and may not serve to predict or prevent subsequent violence. Mironova and Whitt  
7  
8 (2017) express concern about the sustainability of positive peace once peacekeepers depart. Of  
9  
10 course, peacekeeping forces do not operate in a vacuum, and peacekeepers typically are  
11  
12 supported by a range of multilateral domestic and international institutions. If those institutions  
13  
14 matter more than peacekeeping forces to the process of peacebuilding, then the presence or  
15  
16 absence of peacekeeping forces could be a null point after an extended period of time.  
17  
18 Peacekeepers draw down as other institutions emerge and strengthen. We evaluate whether  
19  
20 norms of positive peace are sustainable following the departure of peacekeepers or whether  
21  
22 people revert back to parochial ethnic ties in the absence of sustainable alternatives to  
23  
24 institutional guarantees provided by peacekeepers.  
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### 30 31 **Rationale for Case Selection**

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33 Bosnia is a useful case for examining the long-term effects of peacekeeping missions on  
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35 reducing ethnic tension. While scholars typically dispute ethnocentric explanations for the  
36  
37 Bosnia war as overly simplistic (Woodward 1995, Gagnon 2006; Weidman 2011; Bieber and  
38  
39 Galijas 2016), scholars have identified enduring challenges of post-war ethnocentrism in Bosnia.  
40  
41 First, the Dayton Agreement created complex power-sharing arrangements that institutionalized  
42  
43 war-time ethnic cleavages into the political process (Woodward 1999, Bose 2002; Bieber 2006;  
44  
45 Keil and Kudlenko 2015). The war led to the establishment of *Republika Srpska* as an  
46  
47 ethnoterritorial entity controlled by Bosnian Serbs, alongside the Federation of Bosnia and  
48  
49 Herzegovina, a power-sharing arrangement between Bosniaks and Croats (Toal and Dahlman  
50  
51 2011). Second, the electoral system established in the aftermath of the civil war also reified  
52  
53 ethnic divisions, and prioritized the power of ethnocentric political leaders (Belloni 2006, 2008).  
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4 The ethnocratic political order of the post-war settlement appears to have encouraged  
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6 ethnocentrism in the populace. Dyrstad's (2012) comparison of ethnocentrism in pre-war and  
7  
8 post-war surveys shows that multi-ethnic Bosnia experience pronounced changes in opinions:  
9  
10 from very low to remarkably high levels of ethnocentrism between 1989 and 2003.<sup>2</sup> While  
11  
12 avoiding another war, scholars still point to problems of self-governance in Bosnia and the need  
13  
14 for deep structural reforms to mitigate the further entrenchment of ethnocentrism in Bosnian  
15  
16 society (McMahon 2004; Bieber 2006; Jeffery 2012; Perry 2015; Hulsey 2015; Džankić, 2015).  
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21 Bosnia also has a long history of peacekeeping engagement (Burg and Shoup 1999;  
22  
23 Pickering 2007; Baumann et. al. 2015). The war-time United Nations Protection Force  
24  
25 (UNPROFOR) mission that began in 1992 under UNSCR 1031 ended in 1995 with the signing  
26  
27 of the Dayton Accords (see SI Appendix for more details). As part of the Dayton agreement,  
28  
29 UNPROFOR would be replaced by a NATO-led peacekeeping operation called Implementation  
30  
31 Force (IFOR), consisting of over 60,000 peacekeepers deployed to different regions of Bosnia,  
32  
33 including three major division-strength bases in Tuzla led by the United States (MTF-N), in  
34  
35 Banja Luka led by France (MFT-W), and in Mostar led by the United Kingdom (MTF-S).  
36  
37 Smaller battalion-strength operations were also based in other locations such as Sarajevo, Doboj,  
38  
39 and Zenica.<sup>3</sup> However, in many other regions of Bosnia, peacekeeper operations were limited to  
40  
41 "theatre patrols" without permanent bases on the ground. IFOR was reconfigured in 1996 into a  
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43 stabilization force (SFOR) and peacekeepers were gradually drawn down to about 13,000  
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51 <sup>2</sup> Pre-war survey research by Burg and Berbaum (1989), Hodson et. al. (1994), Sekulic et al.  
52 (1994) pointed to strong traditions of tolerance and cosmopolitanism in Bosnia.

53 <sup>3</sup> The Dayton Agreement: Annex 1A: Military Aspects of the Peace Settlement, Article VI  
54 Deployment of the Implementation Force states that IFOR (Operation Joint Endeavor) would  
55 have complete freedom of movement throughout Bosnia and that IFOR brigades and battalion  
56 locations would be determined by IFOR command. The choice of IFOR deployment locations  
57 was based on a combination of strategic goals as well as logistical and safety concerns. Wentz et.  
58 al. (1998) offer rationales for the deployment of forces to lower elevation urban areas with better  
59 infrastructure resources.  
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4 deployed by 2003. In 2004, SFOR again transitioned to the European-led EUFOR Althea, which  
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6 still maintains approximately 600 peacekeepers in Bosnia to date.<sup>4</sup>  
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8

9 As in most conflicts, peacekeeping forces were not deployed randomly, but were sent to  
10 areas of strategic importance, often where they were deemed most needed (SI Appendix Figure  
11 1). Peacekeeping forces were also not always welcome or wanted by local populations. US  
12  
13 government public opinion surveys show that most Bosnian Serbs held highly negative views of  
14  
15 NATO after the war, Bosnian Croats were often wary of NATO, while Bosniaks were widely  
16  
17 supportive of NATO after the war (SI Appendix Figures 2-4). This leads us to consider whether  
18  
19 the long-term success of peacekeeping efforts depends on public support for their operations, and  
20  
21 Bosnia offers a useful case for assessing effects of NATO peacekeeping efforts on reducing  
22  
23 ethnocentrism in welcoming as opposed to potentially hostile populations. Finally, the  
24  
25 withdrawal of most peacekeeping forces after 2004 allows us to assess what happens to  
26  
27 ethnocentrism after peacekeepers have largely departed. To what extent could peacekeeper  
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29 effects, if any, be permanent and enduring?  
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### 38 **Research Design**

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40 To measure ethnocentrism, we first employ a range of survey instruments across time.<sup>5</sup>  
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42 We rely on survey data from nationally represented surveys conducted in Bosnia by the U.S.  
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49 <sup>4</sup> An important scope condition for our study is that Bosnian peacekeepers were deployed as part  
50 of a clearly negotiated settlement and accompanied by a large body of international civilian  
51 organizations tasked with implementing the peace agreement. Prior UNPROFOR peacekeepers,  
52 in contrast, were deployed in Bosnia in the absence of a clear peace agreement or a  
53 multidimensional civilian component and failed to stem mass violence.  
54

55 <sup>5</sup> We consider ethno-nationalism – the desire for an ethnic political homeland with explicit  
56 ethno-political representation - as conceptually distinct from ethnocentrism, a tendency to  
57 identify with and favor one’s in-group strongly over out-groups in attitudes and preferences. Our  
58 survey and experimental instruments provide better measures of ethnocentrism than ethno-  
59 nationalism.  
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4 government, the UN Development Program, and USAID.<sup>6</sup> To establish baselines for  
5  
6 ethnocentrism prior to the deployment of NATO peacekeepers, we use a nationwide survey of  
7  
8 Bosnia conducted by the U.S. government in December 1995. To assess the impact of  
9  
10 peacekeepers, we employ other survey measures of ethnocentrism provided by UNDP/USAID  
11  
12 data from 2006 through 2011.<sup>7</sup> At each point in time, we compare levels of ethnocentrism in  
13  
14 regions of Bosnia where peacekeepers were deployed to those where peacekeepers were largely  
15  
16 absent.  
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21 As a robustness check on our survey results, we also utilize a behavioral measure of  
22  
23 ethnocentrism: a lab-in-the-field experiment commonly known as the dictator game (Kahneman,  
24  
25 Knetsch & Thaler, 1986; Hoffman, McCabe & Smith, 1996; Camerer 2003). In the dictator  
26  
27 game, the subject (the dictator) decides how to allocate a sum of money between him/herself and  
28  
29 an anonymous recipient. The dictator game can be used to measure self-interest, altruism,  
30  
31 charitable giving, other-regarding preferences, and under varying treatments, can be used to  
32  
33 measure “tastes for discrimination” against others (Fershtman and Gneezy 2001; Engel 2011).  
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38 Our dictator game is a product of the experimental protocols and data collected in 2003  
39  
40 by Whitt and Wilson (2007) and replicated in 2013 by Mironova and Whitt (2016).<sup>8</sup> Subjects  
41  
42 take part in two dictator games in a within-subject design. We have subjects complete a dictator  
43  
44 game first with a co-ethnic (in-group) recipient and then a non-coethnic (out-group) recipient.<sup>9</sup>  
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49 <sup>6</sup> Replication files for this article are available at the *Political Behavior* dataverse:  
50 <https://doi.org/10.7910/DVN/SISU79>  
51

52 <sup>7</sup> Ideally, our survey instruments from the US government and UNDP/USAID surveys would be  
53 identical for a difference in difference design. However, we would argue that if ethnocentric  
54 attitudes were prominent in the population, both sets of instruments should identify it.  
55

56 <sup>8</sup> Neither study considered possible peacekeeping effects on ethnocentrism when examining these  
57 data.  
58

59 <sup>9</sup> Subjects are given an envelope and asked to allocate a 10-unit sum of money to first an in-  
60 group recipient followed by an out-group recipient of random ethnicity using explicit ethnic cues  
61 [respondent is Bosniak, Bosnian Croat, Bosnian Serb]. Whatever is placed in the envelope is sent  
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4 Protocol details are provided in the supplementary appendix. The difference between what is sent  
5  
6 to an in-group recipient compared to an out-group recipient is used as a behavioral measure of  
7  
8 ethnocentrism. Because the second wave of experiments was conducted after most peacekeepers  
9  
10 departed, we can use a difference-in-difference design to assess the longer-term impact of any  
11  
12 peacekeeper effects on ethnocentrism: comparing the 2003 wave where peacekeepers are still  
13  
14 largely present to the 2013 wave where most have departed.<sup>10</sup>  
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19 Finally, because our data are observational in nature, the non-random deployment of  
20  
21 peacekeepers creates endogeneity challenges for causal inference. We will attempt to control for  
22  
23 a number of potential correlates of peacekeeper deployment and other possible confounders in  
24  
25 our analysis. Our multi-wave design is also helpful in controlling for time-invariant confounders.  
26  
27 We will also examine whether there are peacekeeper effects on subsamples of the Bosnian  
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29 population, including those which were opposed to peacekeeping forces being deployed into  
30  
31 their communities (namely, the Bosnian Serbs).  
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### 35 36 **Data Collection and Sampling** 37

38 Nationwide surveys by the U.S. government, UNDP/USAID and our behavioral  
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40 experiments were conducted using similar sampling methods by reputable research firms in  
41  
42 Bosnia. Sampling was done using a multi-stage stratified random sample design with ethnic and  
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44 urban/rural strata. Municipalities were selected using the probability proportion to size method  
45  
46 and neighborhoods and local villages were randomly selected from those municipalities.  
47  
48 Enumerators used a random route technique to identify households and individuals 18 and over  
49  
50 were selected from households using the most recent birthday as a final selection key. Surveys  
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56 to an out-group recipient at a future experimental location. Whatever the subjects keep is theirs  
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58 to take home.

59 <sup>10</sup> Unfortunately, we do not have baseline behavioral measures of ethnocentrism from 1995 prior  
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61 to NATO peacekeeper arrival.  
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4 were administered in respondents' homes by trained enumerators working for various research  
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6 firms in Bosnia.  
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9 For the behavioral experiments, research firms followed the same general sampling  
10 protocols. However, instead of conducting the experiments at home, subjects were brought by a  
11 local enumerator to a central location (school, community center, hotel conference room) where  
12  
13 experimental sessions took place. Subjects conducted the experiment in groups of approx. 18-20,  
14  
15 and were seated behind large screens for privacy. Local enumerators used a standard script to  
16  
17 conduct the experiment (See Appendix for Protocols). In total, there were 681 participants in the  
18  
19 2003 study and 449 in the follow-up replication in 2013.<sup>11</sup> Summary statistics on key  
20  
21 demographic variables are provided online (SI Appendix Table 1). We note that the two studies  
22  
23 are mostly well balanced on demographics and turn-out rates were consistently high (approx.  
24  
25 80%) for both studies, which we believe is due to monetary incentives to participate.<sup>12</sup> Overall,  
26  
27 the 2013 study appears to be a fair replication of the Whitt and Wilson (2007) study. Finally,  
28  
29 while the Bosnian population experienced great internal upheaval during the war, the postwar  
30  
31 population was largely stable between our two points in time, reducing concerns about selection  
32  
33 bias between the 2003 and 2013 samples due to migration.<sup>13</sup> Our survey and experimental  
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35 samples should be comparable across different locations and across time.  
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### 45 **Endogeneity Analysis**

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48 First, we acknowledge that peacekeepers in Bosnia were not randomly deployed, so we  
49  
50 conducted an endogeneity analysis for potential observable correlates of peacekeeper  
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53 <sup>11</sup> Due to budgetary restrictions, we reduced the sample size in the 2013 replication.

54 <sup>12</sup> See the SI Tables 1A-B for balance tables between 2003 and 2013 and between peacekeeping  
55 vs. non-peacekeeping regions.

56 <sup>13</sup> See Tuathail and O'Loughlin (2009) for a discussion of post-war migration and refugee return  
57 in Bosnia. Since the war, however, Bosnia is also experiencing a net negative migration rate,  
58 suggestive of a "brain drain" (See MGD Achievement Fund 2012;  
59 <https://data.worldbank.org/indicator/SM.POP.NETM>)  
60  
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4 deployment. Using logit models, we find that peacekeepers are deployed primarily to urban  
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6 areas, where ethnic Bosniaks reside, and in areas which are more ethnically mixed and have  
7  
8 experienced more severe war-time conflict (SI Appendix Table 2).<sup>14</sup> Hence, we will control for  
9  
10 these endogenous covariates in the subsequent analysis. We are also especially concerned about  
11  
12 whether peacekeepers may have been deployed to areas with *ex-ante* lower levels of  
13  
14 ethnocentrism. On one hand, urban areas that were historically more intermixed could be less  
15  
16 ethnocentric than more homogeneous rural areas.<sup>15</sup> On the other, many ethnically mixed urban  
17  
18 areas experienced severe conflict and ethnic cleansing, which could have intensified  
19  
20 ethnocentrism after the war.  
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26 Fortunately, we know from U.S. government and Yugoslav-era survey data that ethnic  
27  
28 groups in Bosnia, while exhibiting high levels of prewar tolerance, had become extremely  
29  
30 polarized in the immediate aftermath of the war and before the deployment of NATO  
31  
32 peacekeepers (SI Appendix Table 3, Figures 5-10).<sup>16</sup> Using data from a December 1995 U.S.  
33  
34 government survey (immediately after the Dayton Agreement but before the deployment of  
35  
36 NATO peacekeepers), we find that ethnocentric attitudes do not differ significantly in future  
37  
38 peacekeeping regions compared to non-peacekeeping areas. Figure 1 reports the expected value  
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40 from OLS regression models where the dependent variable is a survey measure of in-group and  
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42 out-group favorability and the key independent variable is whether a location would be the site  
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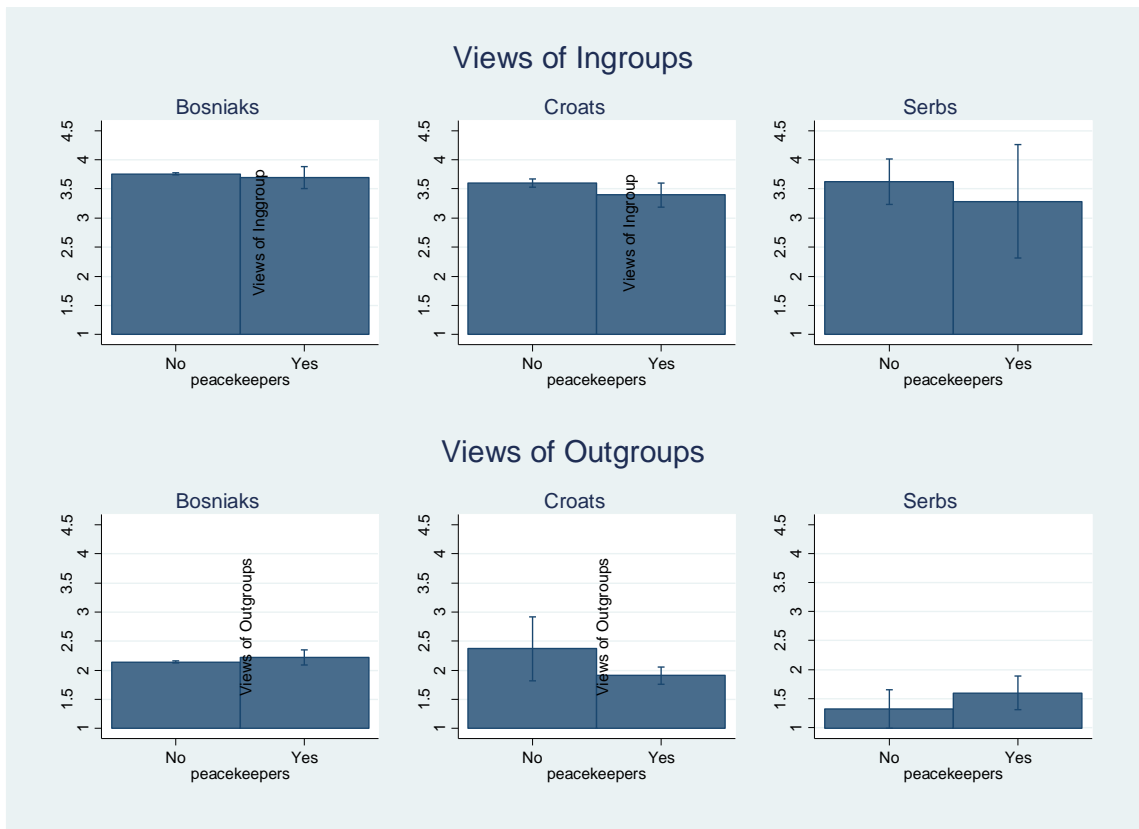
52  
53 <sup>14</sup> Estimates of war casualties were obtained from the Research and Documentation Center  
54 (RDC), Sarajevo. See Ball et. al. (2007).

55 <sup>15</sup> Using pre-war 1989 survey data, Sekulic et. al.(1994) show that Bosnians in general were the  
56 most ethnically tolerant of former Yugoslav republics, especially in urban ethnically mixed  
57 areas.  
58

59 <sup>16</sup> U.S. government surveys were conducted by the Office of Opinion Research in the former  
60 U.S. Information Agency, which has since been incorporated into the State Department.  
61

of a future division or battalion level NATO deployment.<sup>17</sup> We find that ethnocentric attitudes are not significantly different between peacekeeping and non-peacekeeping regions for all three ethnic groups. This reduces concerns that peacekeepers were deployed primarily to less ethnocentric areas.

Figure 1. Ethnocentrism by Ethnicity, Peacekeeper vs. Non-Peacekeeper Regions (Dec. 1995)



We also know that ethnic groups were deeply divided in their support of NATO peacekeeper deployment at the end of the war. U.S. government surveys indicate that Bosnian

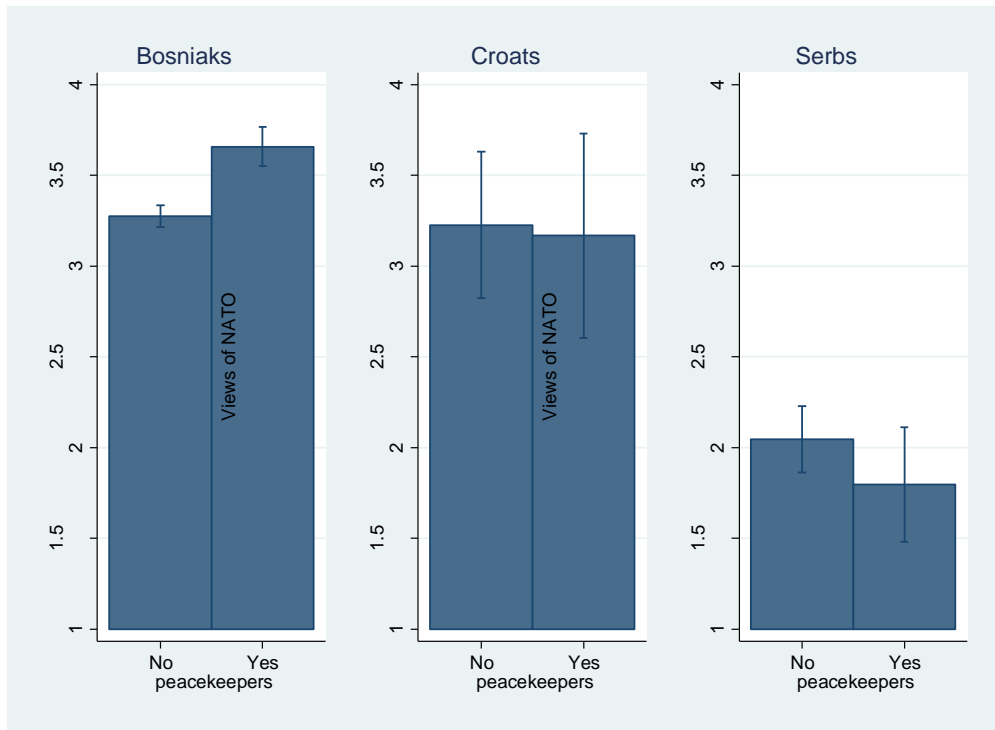
<sup>17</sup> **Views of In and Out Groups** – “Please tell me whether you have a very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable opinion of: [Bosniaks, Bosnian Croats, Bosnian Serbs]” 1 = very unfavorable to 4 = very favorable. Responses are combined into an additive index for views of out-groups for each ethnic group. See SI Table 4 for full regression models.

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4 Serb were strongly opposed to NATO at the onset of deployment and remained so throughout the  
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6 next decade; Bosniaks were always quite favorable toward NATO; and Bosnian Croats' views of  
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8 NATO fluctuated but then steadily improved over time (SI Appendix Figures 2-4). Using data  
9  
10 from a December 1995 U.S. government survey, Figure 2 reports the expected values from OLS  
11  
12 regressions where the dependent variable is support for NATO in December 1995 and the key  
13  
14 independent variables are ethnicity and a dummy variable for whether a location would be a site  
15  
16 for future peacekeeper deployment.<sup>18</sup> Figure 2 shows that Bosniaks are significantly more  
17  
18 favorable toward NATO in areas where peacekeepers will eventually deploy (Tuzla, Mostar,  
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20 Sarajevo) compared to Bosniaks in other areas. Serbs, however, are somewhat more opposed to  
21  
22 NATO in future peacekeeping areas (mainly Banja Luka) than Serbs in other areas, while there  
23  
24 are no significant differences in Croat attitudes toward NATO across different regions. To reduce  
25  
26 concerns about the endogeneity of peacekeeper deployments to areas where peacekeepers were  
27  
28 widely supported, we will evaluate the impact of peacekeeping on ethnocentrism in places where  
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30 peacekeepers were initially unwelcomed and unwanted: areas of Bosnian Serb concentration.  
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58 <sup>18</sup> **Views of Nato** – “what is your opinion of the decision to deploy 60,000 NATO peacekeeping  
59 troops to Bosnia?” 1 = strongly oppose to 4 = strongly support. See SI Table 5 for full regression  
60 results.  
61

Figure 2. Expected Value of NATO Support by Ethnicity, Peacekeeper Region (Dec. 1995)



### Effects of Peacekeepers on Ethnocentric Attitudes

We first assess the impact of peacekeepers on ethnocentric attitudes using longitudinal survey data conducted by the United Nations Development Program (UNDP) between 2006 and 2010 as part of its Early Warning Report program. In this period of time, peacekeepers had been present in Bosnia for over a decade and were still actively deployed in the same locations, though in fewer numbers than in 1995. Ideally, we would have common survey instruments to compare how ethnocentric attitudes changed from 1995 before the deployment of peacekeepers to different periods of time after peacekeepers for a difference-in-difference design. The UNDP focused on attitudes of political and social inclusiveness while the U.S. government surveys addressed more general favorable/unfavorable views of in-groups relative to out-groups.

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4 However, we find a great deal of consistency when comparing across the two instruments;  
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6 subjects tend to respond in ways favorable to their in-group over out-groups (See SI Appendix  
7  
8 Table 6). If ethnocentric attitudes were prevalent in the population, we should observe it clearly  
9  
10 in response to the different survey items.  
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14 Based on UNDP data from 2006-2010, we find positive effects of peacekeeper  
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16 deployment on broad measures of political and social inclusiveness. For political inclusiveness,  
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18 the UNDP surveys ask subjects whether it is acceptable/unacceptable to live in the same state  
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20 with Bosniaks, Croats, and Serbs. For social inclusiveness UNDP surveys ask subjects whether it  
21  
22 would be acceptable/unacceptable to have Bosniaks, Croats, and Serbs as neighbors.<sup>19</sup> Table 1  
23  
24 indicates the results of ordered logit regression analysis on political and social inclusion. The  
25  
26 results are drawn from thirteen nationally representative surveys with over 21,000 observations.  
27  
28 The key independent variable is a dummy variable for whether peacekeepers were deployed to a  
29  
30 given region. Regressions also control for the timing of the survey, subject ethnicity, gender, age,  
31  
32 education, and urban/rural demographics.<sup>20</sup> Table 1 reveals that subjects from regions with  
33  
34 peacekeepers are significantly more supportive of the political and social inclusion of out-groups  
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36 compared to subjects from non-peacekeeper regions across different points in time. There are  
37  
38 also independent effects of time on the improvement of social and political inclusive attitudes,  
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40 and Bosniaks are more welcoming of outgroups than Bosnian Croats or Serbs. Hence, compared  
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42 to the onset of peacekeeper deployments in 1995, where US government surveys found high  
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44 levels of ethnocentrism throughout Bosnia, the follow-up 2006-2010 UNDP surveys show  
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54 <sup>19</sup> Political Inclusion DV. How acceptable/unacceptable is it for you to live in the same state with  
55 [Serbs, Croats, Bosniaks]? [1 = completely unacceptable to 4 = completely acceptable]

56 Social Inclusion DV = How acceptable/unacceptable is it for [Serbs, Croats, Bosniaks] to live in  
57 your neighborhood? [1 = completely unacceptable to 4 = completely acceptable]

58 <sup>20</sup> The UNDP surveys did not include measures of individual-level war-time victimization, which  
59 we acknowledge as a potentially important limitation of the data.  
60  
61

reduced ethnocentrism in peacekeeping regions compared non-peacekeeping regions. Although these results are not definitive evidence of a causal effect of peacekeeping, they support our hypothesis that *ethnocentrism is reduced by the presence of peacekeeping forces*.

Table 1. Peacekeepers and Support for Political and Social Inclusion of Out-Groups (UNDP DATA 2006-2010)

VARIABLES	Political Inclusion			Social Inclusion		
	(1) Share State with Bosniaks	(2) Share State with Croats	(3) Share State with Serbs	(4) Neighbors with Bosniaks	(5) Neighbors with Croats	(6) Neighbors with Serbs
peacekeepers	0.555** (0.106)	0.586** (0.114)	0.395** (0.0832)	0.522** (0.0876)	0.551** (0.113)	0.379** (0.0791)
time	0.0222* (0.0135)	0.0457** (0.0118)	0.0519** (0.0195)	0.0147 (0.0108)	0.0314** (0.0104)	0.0559** (0.0192)
Bosniak subject		2.068** (0.128)	1.515** (0.108)		1.991** (0.134)	1.544** (0.102)
Croat subject	0.200 (0.103)			0.0650 (0.0865)		
female	0.0877* (0.0424)	0.0135 (0.0673)	0.0132 (0.0581)	0.0792* (0.0370)	-0.00829 (0.0732)	0.0123 (0.0611)
age	0.00276 (0.00330)	0.00455** (0.00127)	0.00181 (0.00281)	0.00413 (0.00352)	0.00499** (0.00138)	0.00238 (0.00268)
education	-0.162** (0.0589)	-0.113** (0.0388)	-0.116 (0.0870)	-0.174** (0.0581)	-0.123** (0.0406)	-0.118 (0.0865)
village	-0.101 (0.0518)	-0.223** (0.0575)	-0.0629 (0.0581)	-0.111 (0.0594)	-0.272** (0.0576)	-0.0814 (0.0642)
Constant 1	-1.576** (0.458)	-0.948** (0.330)	-0.783 (0.563)	-1.818** (0.361)	-1.482** (0.270)	-0.571 (0.560)
Constant 2	-0.577 (0.454)	0.0726 (0.338)	0.179 (0.556)	-0.735* (0.367)	-0.421 (0.270)	0.489 (0.578)
Constant 3	0.783 (0.495)	1.599** (0.332)	1.395* (0.612)	0.576 (0.396)	1.109** (0.267)	1.625** (0.617)
Out-groups Only	Croats, Serbs Only	Serbs, Bosniaks Only	Croats, Bosniaks Only	Croats, Serbs Only	Serbs, Bosniaks Only	Croats, Bosniaks Only
Observations	11,748	16,065	15,330	11,734	16,056	15,324
adj. r2	0.00923	0.126	0.0768	0.00830	0.118	0.0789
ll	-13932	-12049	-12093	-14182	-12228	-12575

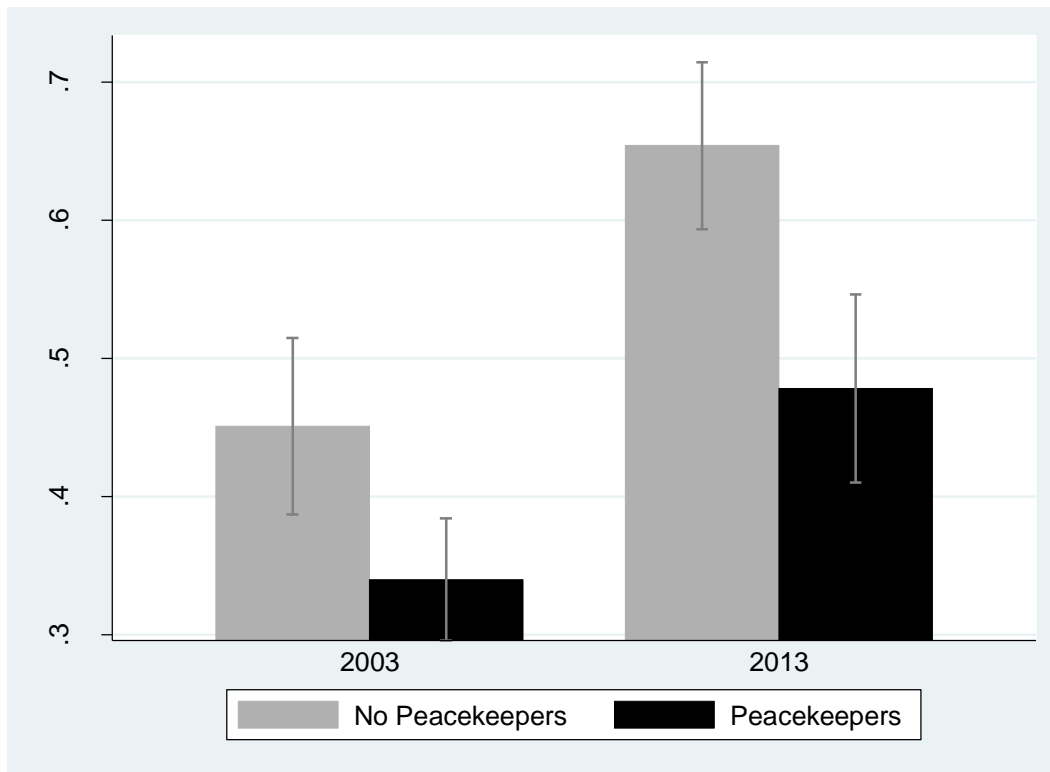
Robust standard errors clustered by survey wave in parentheses.  
See SI Table 15 for variable description and coding, \*\* p<0.01, \* p<0.05

## Effects of Peacekeepers on Ethnocentric Behavior

Next, we evaluate whether peacekeepers might have a substantive impact on ethnocentric behavior. Though we do not have baseline behavioral data prior to the deployment of peacekeepers, we do have experimental data from two distinct points in time which rely on the same instruments to measure ethnocentrism. The first point in time is 2003, when peacekeepers were still largely active in Bosnia. The second point is 2013, after most peacekeepers had departed. We can use a difference-in-difference analysis to assess whether any peacekeeper effect present during the first wave of experiments persists to the second wave.

We begin by examining variation in our key dependent variable – dictator game measures of ethnocentrism. Figure 3 reports the incidence of in-group bias in the dictator game, which is coded 1 if the subject sent more money to an in-group member than an out-group member and 0 if otherwise. Figure 3 shows that on average subjects sent more money to an in-group recipient than an out-group recipient in both the baseline (2003) and follow-up (2013) studies. Hence, ethnocentrism is clearly evident in subject behavior. However, Figure 3 also indicates what appears to be a plausible peacekeeping effect on ethnocentrism. Comparisons of peacekeeper to non-peacekeeper regions indicate that mean in-group bias is significantly lower in peacekeeper regions both at baseline (34% vs. 45%,  $t = 2.85$ ,  $p < 0.003$ ) and at follow-up (48% vs. 68%,  $t = 3.81$ ,  $p < 0.0001$ ), even after almost all peacekeepers had departed. At the same time, in-group bias has also increased dramatically from 2003 to 2013 in both peacekeeper ( $t = 3.42$ ,  $p < 0.0003$ ) and non-peacekeeper regions ( $t = 4.54$ ,  $p < 0.000$ ).

Figure 3. Peacekeepers and In-group Bias in the Dictator Game at Baseline vs. Follow-up (with 95% Confidence Intervals)



To investigate further, Table 2 provides the results of difference-in-difference analysis of the effects of peacekeeping on in-group bias. While overall in-group bias increases between 2003 and 2013 in both peacekeeper and non-peacekeeper regions, the net change in in-group bias between peacekeeping regions and non-peacekeeping regions (the difference-in-difference) is not statistically significant ( $t = -1.07$ ). This is remarkable given the departure of most peacekeeping forces in Bosnia over this same period of time. Noting that peacekeeper and non-peacekeeper regions were both strongly ethnocentric in 1995 according to U.S. government surveys, the deployment of NATO peacekeepers appears to have exerted a considerable effect on the reduction of ethnocentrism where present. Furthermore, once peacekeepers departed, ethnocentrism in areas with peacekeeping forces did not converge to levels of non-peacekeeping areas, which suggests a potential long-term positive effect of peacekeeping on the reduction of ethnocentric behavior.



Table 2. Difference-in-Difference Analysis of Peacekeeper Effects over Time

	2003 (BL = Baseline)			2013 (FU = Follow-up)			Diff-in-Diff (BL vs. FU)
	No Peace-keepers	Peace-keepers	Diff (BL)	No Peace-keepers	Peace-keepers	Diff (FU)	
In-group bias	0.451	0.340	-0.111	0.654	0.478	-0.176	-0.065
SE	0.034	0.023	0.046	0.031	0.034	0.046	0.060
t	14.26	14.78	-2.84	20.90	14.27	-3.83	-1.07
P >  t			0.005**			0.000**	0.283

\*\* p<0.01

### Robustness Checks

One possibility is that the peacekeeping effect we observe could be easily confounded. We now evaluate whether the peacekeeping effect is robust to the inclusion of observable covariates of peacekeeper deployment. To estimate the effect of peacekeepers on behavior at a given point in time and location, we employ logit regression models. Our main dependent variable is the logistic transformation of the binary variable ( $Y_{itl}$ ) which is coded 1 if the individual (i) display an in-group bias in the dictator game and 0 if not at a given time (t) and location (l). Our key explanatory variable is the binary variable ( $\Pi_{itl}$ ) denoting whether peacekeepers were deployed where an individual lives = 1 or not = 0. Among controls ( $X_{itl}$ ), we include individual-level variation in ethnicity, gender, age, education, and unemployment.<sup>21</sup> We also control for regional level covariates that are endogenous to peacekeeper deployments (rural environment, ethnically mixed regions, war severity). Standard errors are clustered by location. To estimate the effect of peacekeepers on behavior over time, we pool the data and introduce a binary temporal variable ( $T_{itl}$ ) where 0 = 2003 and 1 = 2013. To capture the effects of peacekeeper deployment over time, we include an interaction term ( $\Pi_{itl} * T_{itl}$ ).

<sup>21</sup> We also examine a subsample of victims of violence. We only have individual level victimization data from 2013 due to IRB restrictions on asking about victimization in the 2003 study.

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4 Table 3 below reports the regression results. Models 1-2 show that while ethnocentrism  
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6 has increased between 2003 and 2013, the presence of peacekeepers has a robust negative effect  
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8 on in-group bias at each point in time, as well as in the pooled Model 3. Consistent with  
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10 difference-in-difference analysis, the interaction term between peacekeepers and time is not  
11  
12 significant meaning that the effect of peacekeeping forces on ethnocentrism is fairly constant  
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14 across time, even though peacekeepers have largely departed by 2013. Figure 4 presents the  
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16 predicted probabilities derived from model 3 in Table 3. These probabilities demonstrate that  
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18 there are higher levels of in-group bias in 2013 in comparison to 2003. However, regions with  
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20 peacekeepers have lower levels of in-group bias in comparison to regions without peacekeepers.  
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22 The differences in the probability of exhibiting in-group bias between regions with and without  
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24 peacekeepers are statistically significant (distinguishable from zero at a 95 percent confidence  
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26 level) in both years. The differences in probability are between 0.1 and 0.2 for both years which  
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28 suggests that respondents in peacekeeper regions were from 10 to 20 percent less likely to  
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30 exhibit in-group bias in the dictator game. Substantively, the peacekeeper regions exhibit  
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32 reduced ethnocentrism in comparison to non-peacekeeper regions, and the peacekeeper effect is  
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34 relatively consistent over time.  
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43 Other correlates of peacekeeper deployment (war severity, ethnic fractionalization, etc.)  
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45 are not significant, and individual demographic controls are also not significant or inconsistent.<sup>22</sup>  
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47 In model 4 of Table 3, the results hold when controlling for attitudinal measures of  
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49 ethnocentrism (in-group ties and outgroup threat perception) as well as trust in NATO. Another  
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51 concern for us is that our results might be confounded by other unobserved omitted variables.  
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56 <sup>22</sup> Individual level victimization is significantly correlated with a reduction in in-group bias in the  
57 follow-up model but we lack comparable victimization data for 2003. This finding is consistent  
58 with other behavioral studies of pro-sociality among victims of violence (see Bauer et. al. 2016).  
59 Unemployment is also negatively correlated with in-group bias in the 2003 study.  
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4 However, using the Altonji et. al. (2005) method for dealing with selection on unobservables, we  
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6 estimate that the effect of an unobserved confounder would need to be nearly six times greater  
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8 than all observables in our pooled model 4 to explain away the effect of peacekeepers, which  
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10 suggests that the inclusion of additional controls is unlikely to nullify our results.<sup>23</sup> Finally, as an  
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12 additional robustness check (model 5 of Table 3), we find that peacekeeper effects are robust to  
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14 subsamples of the Bosnian population, specifically to Bosnian Serbs, who held the most  
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16 unfavorable views of NATO prior to NATO peacekeeper deployment in their communities. The  
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18 effects of peacekeepers on Bosniaks and Bosnian Croats are similarly robust.<sup>24</sup>  
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47 <sup>23</sup> To assess how much greater the effect of an unobserved variable would need to be relative to  
48 observable factors to explain away a key explanatory variable, Altonji et. al. (2005) use a ratio of  
49 regression coefficients from models with full and restricted control variables ( $\beta^F/(\beta^R-\beta^F)$ ). In our  
50 case, the restricted coefficient is obtained when only controlling for peacekeepers, which is  
51  $\beta^R = -0.687$  (SE = 0.161,  $p < 0.0000$ ). The ratio of full to restricted models is 5.87.  
52

53 <sup>24</sup> In additional models, we found that the peacekeeping effect is also robust to more socio-  
54 economic controls, changes in municipal level economic conditions (which may proxy for  
55 confounding effects of international aid following peacekeeper deployments), and changes in  
56 ethnic fractionalization from the 1991 to 2013 population censuses, and restricted samples of  
57 more rural and ethnically homogenous areas of Bosnia. We also find the peacekeeping effect is  
58 robust to coarsened exact matching, inverse probability weighting, and propensity score  
59 matching. See SI Appendix Tables 8-11, 17.  
60  
61

Table 3. Effects of Peacekeepers/Time on Ethnocentrism (Logit Regression).

	(1)	(2)	(3)	(4)	(5)
	2003	2013	2003 + 2013	2003 + 2013	Serbs Only
Peacekeeper region	-0.733** (0.211)	-0.669** (0.201)	-0.563* (0.224)	-0.587** (0.207)	-0.842** (0.280)
Year 2013			0.806** (0.217)	0.479* (0.235)	0.459* (0.230)
Peacekeeper regions* Year 2013			-0.247 (0.266)	-0.169 (0.263)	-0.0625 (0.337)
Feeling close to one's ethnicity				0.552** (0.0844)	0.278* (0.123)
Feeling unsafe around other ethnicities				0.169 (0.0908)	0.161 (0.0969)
Trust in NATO				-0.0700 (0.0551)	-0.312** (0.0815)
Bosnjak	0.462 (0.346)	-0.154 (0.219)	0.355 (0.328)	0.384 (0.318)	
Croat	-0.0907 (0.215)	0.895** (0.154)	0.252 (0.184)	0.220 (0.165)	
Female	0.166 (0.236)	0.154 (0.254)	0.0695 (0.133)	0.192 (0.124)	0.369* (0.223)
Age	-0.00108 (0.00516)	-0.00131 (0.0107)	0.00375 (0.00437)	0.00306 (0.00506)	-0.0104 (0.00736)
Education	0.163 (0.134)	-0.132 (0.0876)	0.0263 (0.0930)	0.0608 (0.0916)	0.320 (0.295)
Rural region	0.0244 (0.0865)	0.0102 (0.132)	-0.00527 (0.0717)	-0.0428 (0.0857)	0.259* (0.104)
Unemployed	-0.512** (0.173)	-0.192 (0.340)	-0.389* (0.181)	-0.395* (0.156)	-0.997** (0.321)
Ethnically mixed municipality	-0.0195 (0.361)	-0.0542 (0.103)	-0.179 (0.288)	0.0877 (0.248)	0.246 (0.228)
Log(wardeaths)	0.0775 (0.0834)	0.0848 (0.0614)	0.0593 (0.0456)	-0.0227 (0.0444)	0.0295 (0.112)
Victimization during the war	N/A	-1.118 (0.498)			
Constant	-1.159 (0.617)	2.040 (1.443)	-0.792 (0.465)	-1.510** (0.566)	-1.576 (1.722)
Survey Responses	670	449	1,119	1,046	336
Pseudo-R <sup>2</sup>	0.0316	0.0581	0.0481	0.0873	0.121
Log likelihood	-431.5	-288.7	-734.7	-659.4	-203.0

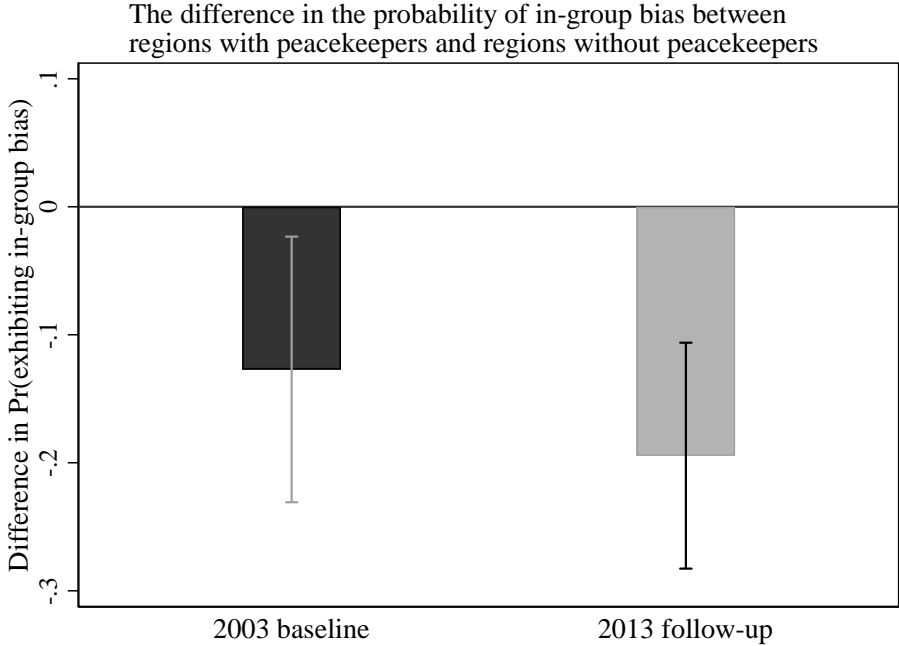
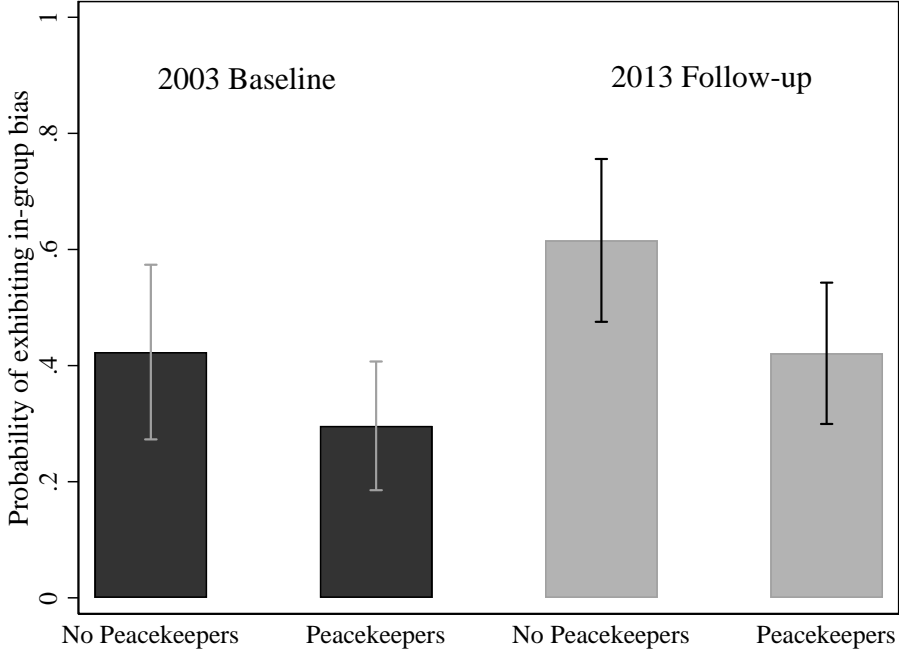
Dependent variable: 1 (Exhibiting in-group bias), 0 (Not exhibiting in-group bias)

Robust standard errors in parentheses, clustered by location

See SI Table 15 for variable description and coding. \*\* p<0.01, \*p<0.05

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Figure 4: In-group bias by year and the presence of peacekeepers with 95 percent confidence intervals



Note: Exhibiting in-group bias (1), not exhibiting bias (0)  
Source: 2003 and 2013 surveys of Bosnia and Herzegovina

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4 We also consider whether our dictator game is a poor measure of ethnocentrism.  
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7 However, we find that our experimental measures are comparable to other survey indicators of  
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9 ethnocentrism, and one advantage of the experiments is that posturing is costly to participants  
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11 (See discussion around SI Table 6). Dictator in-group bias is also well-correlated with survey  
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13 measures of in-group social distance and threat perceptions of out-groups, which serves as an  
14  
15 internal validity check on our experimental design (SI Table 12). Consistent with in-group bias  
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17 in the dictator game, attitudinal ties to one's in-group increase between 2003 and 2013 ( $t = 9.47$ ,  
18  
19  $p < 0.0000$ ) as do out-group threat perceptions ( $t = 4.63$ ,  $p < 0.0000$ ). This is suggestive (though  
20  
21 not definitive) of a mechanism where the absence or removal of peacekeepers heightens threat  
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23 perceptions of out-groups that make people turn inward and revert back to ethnocentrism over  
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25 time, heightening ethnic security dilemmas. The negative effects of the removal of peacekeepers  
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27 may be worsened if peacekeepers are not supplemented with other integrative institutions to  
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29 facilitate peaceful, cooperative inter-group contact.  
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36 Finally, our experimental study was conducted at only two points in time. However, the  
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38 consistency of experimental findings with results from the 2006-2010 survey data encourages us  
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40 that our observations are not simply an anomaly or peculiarity of experimental design, sampling  
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42 methodologies, or are sensitive to historical effects of the timing of our two studies. The  
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44 peacekeeper effect we observe appear robust to different attitudinal and behavioral measures of  
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46 ethnocentrism and are observable across time.  
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## Discussion and Conclusion

What impact can peacekeeping forces have on long-term prospects for positive peace? Using the case of NATO peacekeeping in Bosnia, we find a significant reduction in ethnocentric behavior in areas where peacekeeping forces were actively deployed after the war compared to regions with less contact with peacekeepers. Our findings are robust to controls for observable correlates of peacekeeper deployment (war severity, ethnic fractionalization, urban areas) and to individual demographic controls. We find that reductions in ethnocentric behavior are sustained even after the departure of peacekeeping forces and our observations take place over the span of a decade. This effect is noted even for Bosnian Serb populations who were highly ethnocentric and opposed to NATO from the onset. Our results suggest that peacekeepers can have a positive effect on positive peace even when they are largely unwelcome and unwanted by local populations. Our findings speak to the potentially critical role that peacekeeping deployments can play in the promotion of positive peace after violence, decreasing in-group bias among formerly warring factions. Respondents in peacekeeping regions were between 10 and 20 percent less likely to exhibit in-group bias.

More broadly, our findings support Alexander and Cristia (2011) and Michelitch (2015), showing how institutional contexts affect pro-social and parochial behavior. We find that peacekeepers may help create contexts that encourage more prosocial behavior towards out-groups (less in-group bias in the dictator game). These results suggest that the presence of peacekeepers helps to promote cooperative norms among ethnic groups, in comparison to areas without peacekeepers, which are more parochial. We find it encouraging that there is a legacy of pro-social behavior toward out-groups even after peacekeepers depart. On the other hand, we

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4 also observe increases in ethnocentrism throughout Bosnia over time, which raises concerns  
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6 about the long-term sustainability of pro-sociality among ethnically parochial groups.  
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9 Finally, due to the limitations of our data, we can only speculate here about causal  
10 mechanisms which must be evaluated in future research. We have suggested that peacekeepers  
11 work to reduce fears and uncertainties that fuel security dilemmas (Posen 1993) and that the  
12 presence of peacekeepers has a cascading effect on the transmission of pro-social codes of  
13 behavior (Kuran 1998). Our results also appear consistent with third-party monitoring and  
14 enforcement mechanisms proposed by Mironova and Whitt (2017) using lab experiments in  
15 peacekeeping regions of neighboring Kosovo. In the absence of credible alternatives to  
16 peacekeepers to monitor and enforce peace, we imagine that the departure of peacekeepers could  
17 lead to a reverse cascade of fear and mistrust, heightening security dilemmas and leading  
18 potentially to recurrent violence. Indeed, in Bosnia we find that ethnocentrism, out-group threat  
19 perceptions, and in-group affinities have increased over time, which signals that more needs to  
20 be done to expand and reform institutions of integration (Keil and Kudlenko 2015).  
21 Nevertheless, our results offer encouragement that peacekeepers can play a proactive and  
22 potentially enduring role in promoting positive peace.  
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53 paper.  
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## Beyond Keeping the Peace: Can Peacekeepers Reduce Ethnic Divisions After Violence?

### Material for a Supplementary Appendix

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## **Data Collection and Sampling for Dictator Games**

We replicate the fieldwork conducted by Whitt and Wilson (2007) using the same sampling protocols in the same locations. Sampling was done using a multi-stage stratified random sample design with ethnic and urban/rural strata. Municipalities were selected using the probability proportion to size method and neighborhoods and local villages were randomly selected from those municipalities. Enumerators used a random route technique to identify households and individuals 18 and over were selected from households using the most recent birthday as a final selection key. Subjects were then brought by a local enumerator to a central location (school, community center, hotel conference room) where experimental sessions took place. Subjects conducted the experiment in groups of approx. 18-20, and were seated behind large screens for privacy. Local enumerators use the same standard script as Whitt and Wilson to conduct the experiment (2007). In total, there were 681 participants in the 2003 study and 449 in the follow-up replication. Summary statistics on key demographic variables are provided below in Table 1. We note that the two studies are mostly well balanced on demographics and turn-out rates were consistently high (approx. 80%) for both studies, which we believe is due to monetary incentives to participate. Overall, we believe we conducted a reasonably fair replication of the Whitt and Wilson (2007) study. Finally, while the Bosnian population experienced great internal upheaval during the war, the postwar population was largely stable between our two points in time, reducing concerns about selection bias between the 2003 and 2013 samples due to migration.<sup>1</sup> Our two samples should be comparable across different locations and across time.

---

<sup>1</sup> See Tuathail and O'Loughlon (2009) for a discussion of post-war migration and refugee return in Bosnia.

**Table 1. Descriptive Statistics and Covariate Balance**

A. Kolmogorov-Smirnov Balance Tests between 2003 and 2013

	2003	2013	KS Balance Combined D
Proportion (SD)			
Serbs	0.32 (0.018)	0.33 (0.022)	0.01
Croats	0.30 (0.018)	0.27 (0.021)	0.04
Bosniaks	0.38 (0.019)	0.40 (0.023)	0.02
Female	0.48 (0.019)	0.39 (0.023)	0.09*
Unemployed	0.28 (0.017)	0.25 (0.020)	0.03
Mean (SD)			
Age	35.4 (13.4)	36.0 (15.0)	0.06
Education	2.98 (0.72)	2.84 (0.83)	0.06
Rural	1.72 (1.04)	1.50 (0.87)	0.08*
Ethnically mixed municipality	0.61 (0.49)	0.53 (0.50)	0.08
Survey Responses	680	449	

Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05

B. Kolmogorov-Smirnov Balance Tests between Peacekeeper/Non-Peacekeeper Regions for 2003 vs. 2013

	Peacekeeper Regions (2003 vs. 2013)	Non-Peacekeeper Regions (2003 vs. 2013)
Serbs	0.01	0.01
Croats	0.13*	0.01
Bosniaks	0.14**	0.02
Female	0.09	0.08
Unemployed	0.01	0.07
Age	0.07	0.08
Education	0.08	0.04
Rural	0.02	0.24**
Survey Responses	680	449

Two sample tests for equality of distribution functions. K-S Combined D statistic reported.

**Table 2. Endogeneity Analysis of Peacekeeper Deployment**

	(1) peacekeepers	(2) peacekeepers
Serb	-0.537* (0.210)	
Croat	-0.478* (0.210)	
Rural region	-0.536** (0.0818)	
Ethnically mixed <sup>2</sup> municipality		0.585** (0.224)
Log(war deaths)		1.706** (0.202)
Constant	1.908** (0.200)	-12.18** (1.355)
Survey Responses	680	680
Pseudo-R <sup>2</sup>	0.0728	0.327

Dependent variable: 1 (Peacekeeper region), 0 (No Peacekeeper region)

Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05

---

<sup>2</sup> note: the variable “Mixed” is coded 1 if the municipality has an ethnic minority population > 10% or 0 if <10% (mixed has a “1” if one of the ethnic groups has more than 10 percent of the population). Results are consistent using a more refined measure of ethnic fractionalization. Estimates of war casualties were obtained from the Research and Documentation Center (RDC), Sarajevo. See Ball et. al. (2007).

**Table 3. Violence and Ethnic Tolerance (1989 vs. 1996)**

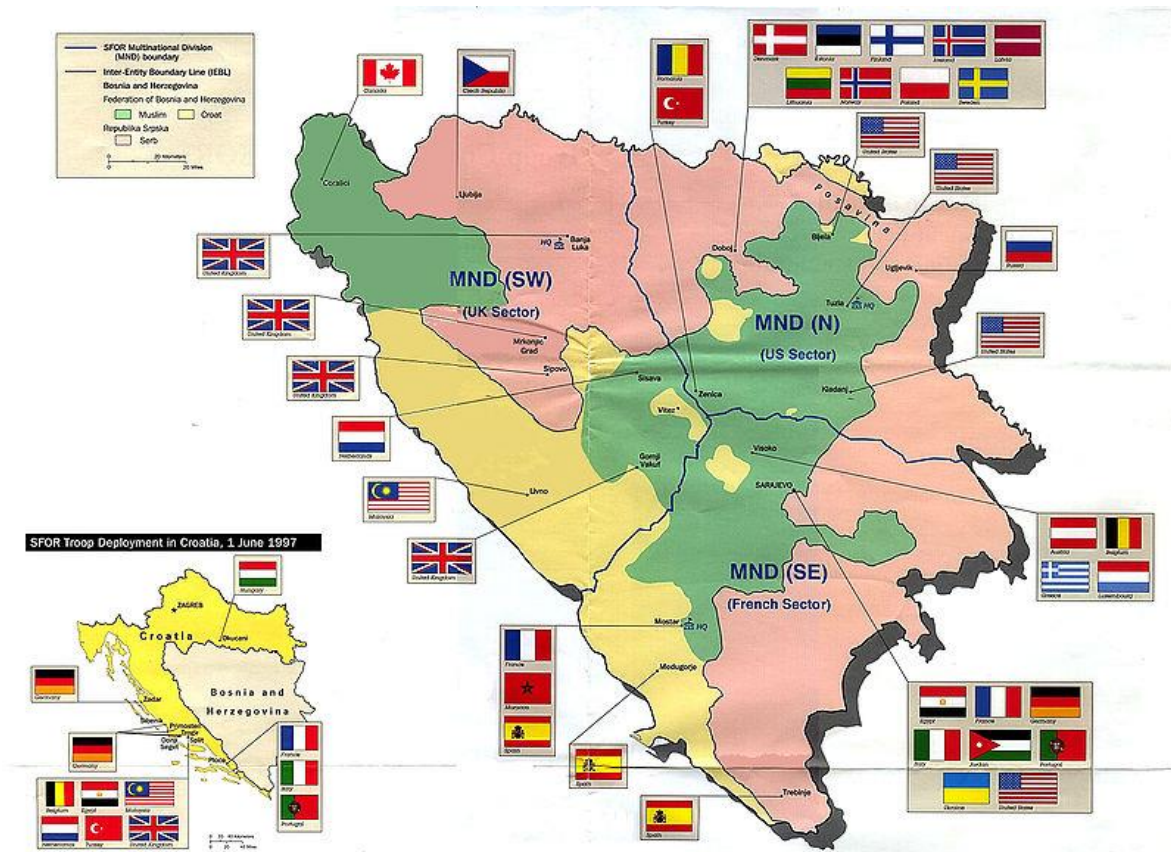
	<b>Bosniaks/ Muslims</b>		<b>Bosnian Croats</b>		<b>Bosnian Serbs</b>	
	1989	1996	1989	1996	1989	1996
<i>People can feel safe only when they are the majority nationality in their country (%)</i>						
Agree	11	55	17	93	13	96
Disagree	82	39	76	7	81	3
<i>Every nation should have its own state (%)</i>						
Agree	6	17	14	88	5	98
Disagree	88	80	80	11	88	1
<i>Nationally mixed marriages are unstable/generally not a good thing (%)</i>						
Agree	25	54	29	81	23	65
Disagree	69	31	61	17	70	32

*Source: Consortium for Social Research Institutes of Yugoslavia survey, 1989; USIA Office of Opinion Research survey, August 1996*

## NATO Peacekeeper Deployments in Bosnia

Figure 1 below provides a map of IFOR/SFOR peacekeeper deployments circa May 1997. In some cases, minor deployment areas were temporary or primarily served for logistical and supply needs for larger field operations. For example, some of the smaller battalion-level peacekeeping missions were withdrawn early, such as the Russian peacekeeping mission in MND(N) at Camp Ugljevik. We consider here how sensitive our results are with regards to minor coding changes in our peacekeeping variable. Our main results are robust to a number of different coding strategies to include the inclusion and exclusion of minor regional peacekeeping operations.

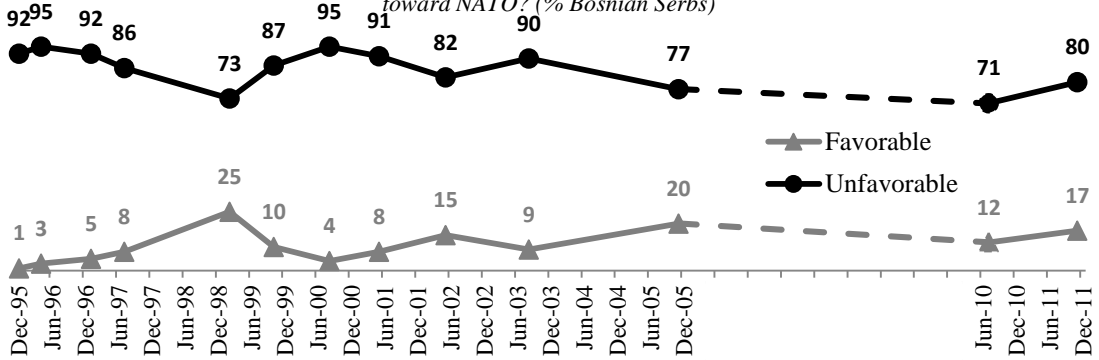
Figure 1. SFOR Troop Deployments in Bosnia (circa May 1997).



Figures 2-4. Views of NATO over time by Ethnicity

**Figure 2. Bosnian Serb views of NATO (1995-2011)**

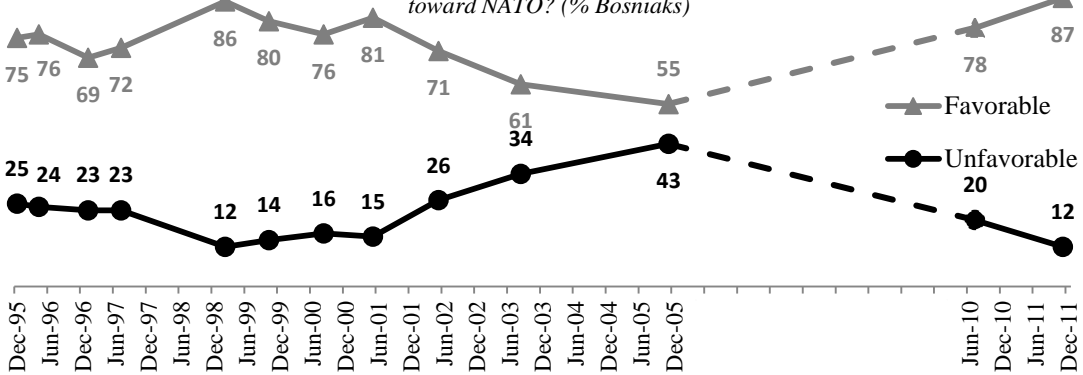
Q: Please tell me whether you are confident/favorable or not confident/not favorable toward NATO? (% Bosnian Serbs)



Source: Office of Research surveys, 1995-2011

**Figure 3. Bosniaks views of NATO (1995-2011)**

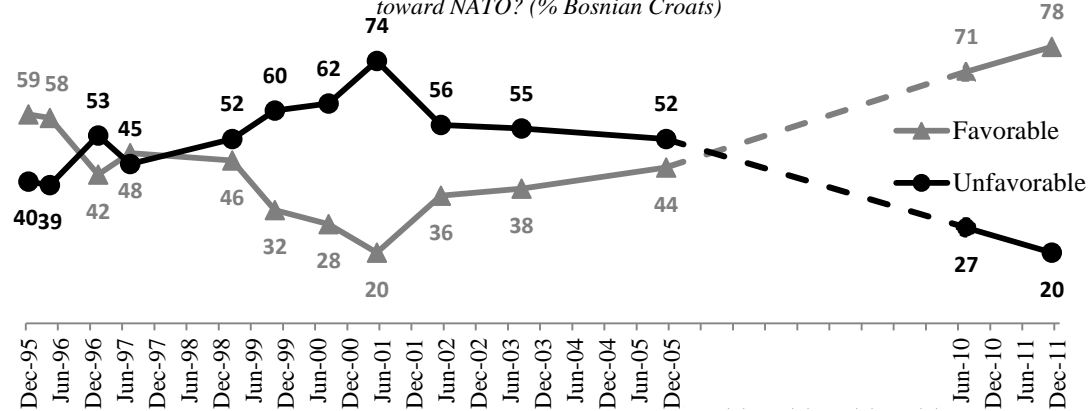
Q: Please tell me whether you are confident/favorable or not confident/not favorable toward NATO? (% Bosniaks)



Source: Office of Research surveys, 1995-2011

**Figure 4. Bosnian Croat views of NATO (1995-2011)**

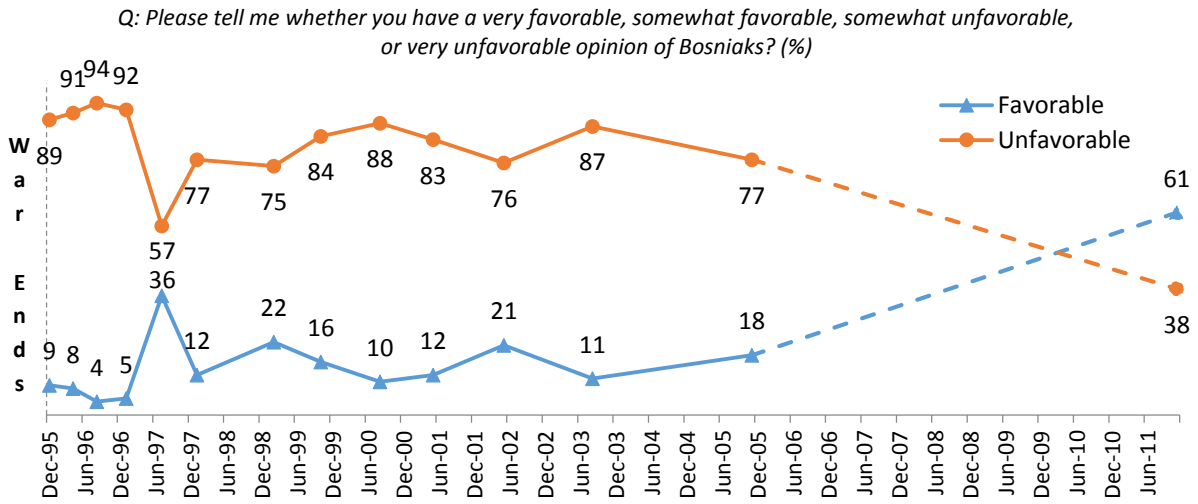
Q: Please tell me whether you are confident/favorable or not confident/not favorable toward NATO? (% Bosnian Croats)



Source: Office of Research surveys, 1995-2011

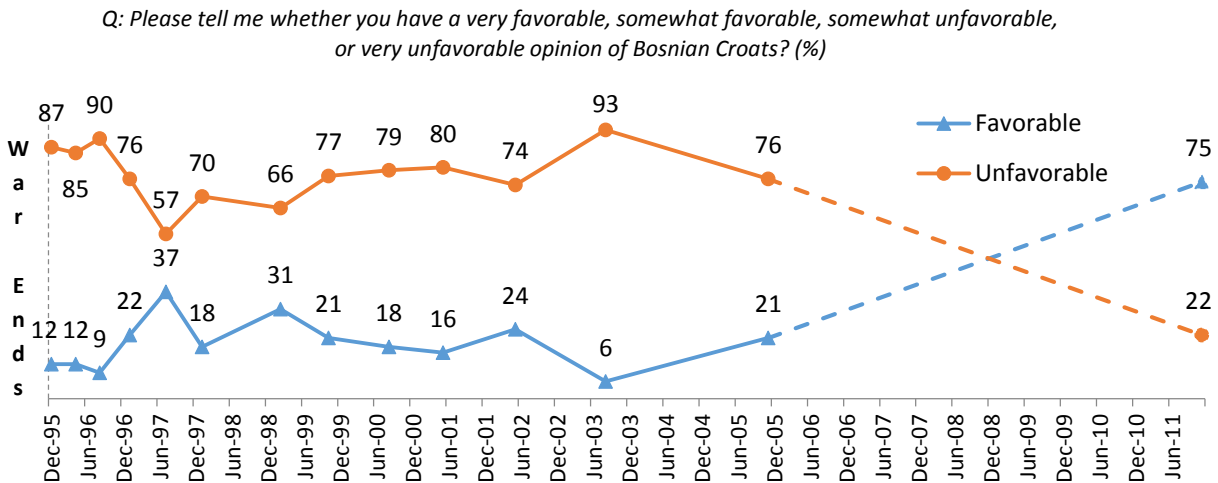
## Survey Data on Ethnic Tolerance in Bosnia (1995-2011)

### Figure 5. Bosnian Serbs Views of Bosniaks (1995-2011)



Source: Office of Opinion Research surveys, 1995-2011

### Figure 6. Bosnian Serb Views of Bosnian Croats (1995-2011)

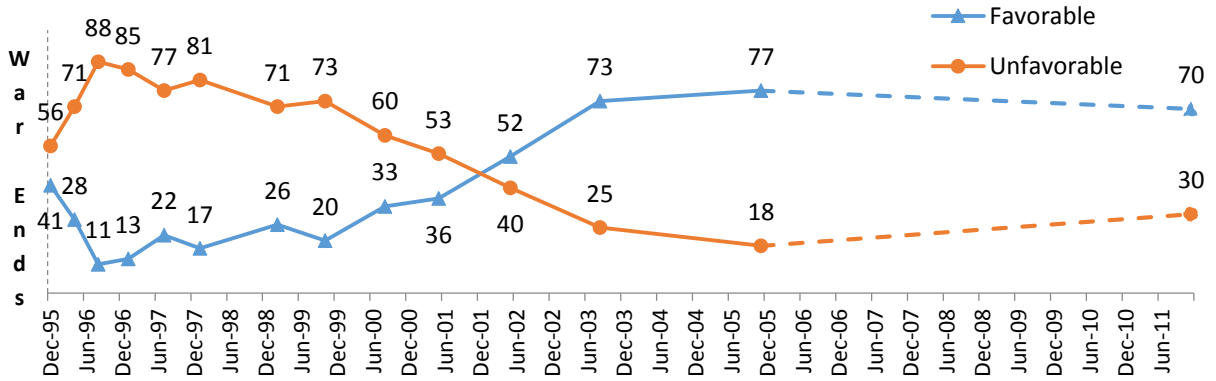


Source: Office of Opinion Research surveys, 1995-2011



Figure 7. Bosnian Croat Views of Bosniaks (1995-2011)

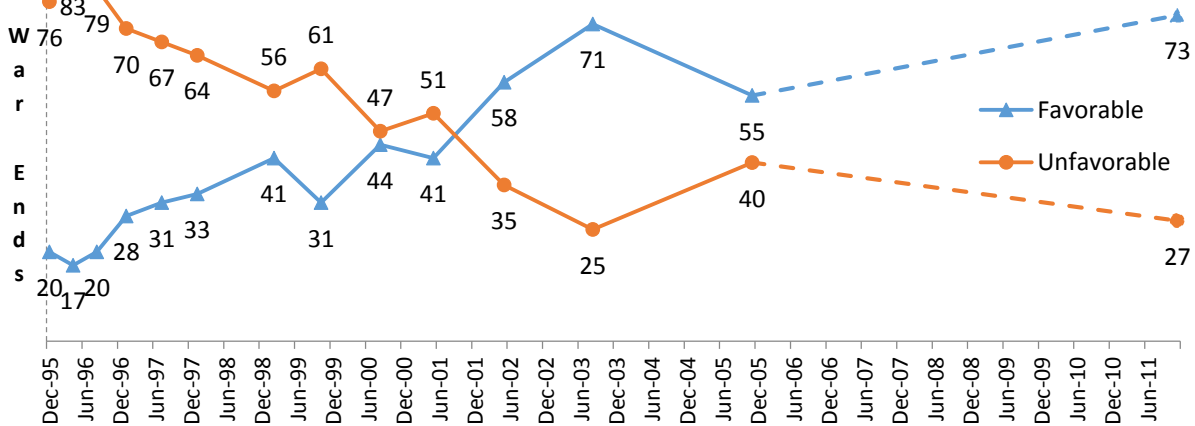
Q: Please tell me whether you have a very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable opinion of Bosniaks? (%)



Source: Office of Opinion Research surveys, 1995-2011

Figure 8. Bosnian Croat Views of Bosnian Serbs (1995-2011)

Q: Please tell me whether you have a very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable opinion of Bosnian Serbs? (%)



Source: Office of Opinion Research surveys, 1995-2011

Figure 9. Bosniak Views of Bosnian Serbs (1995-2011)

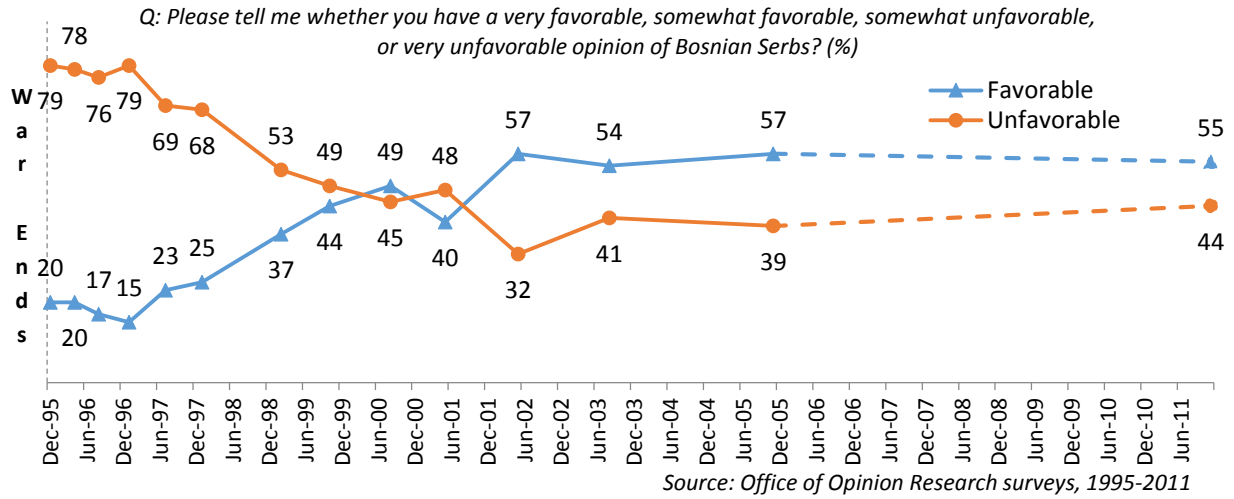


Figure 10. Bosniak Views of Bosnian Croats (1995-2011)

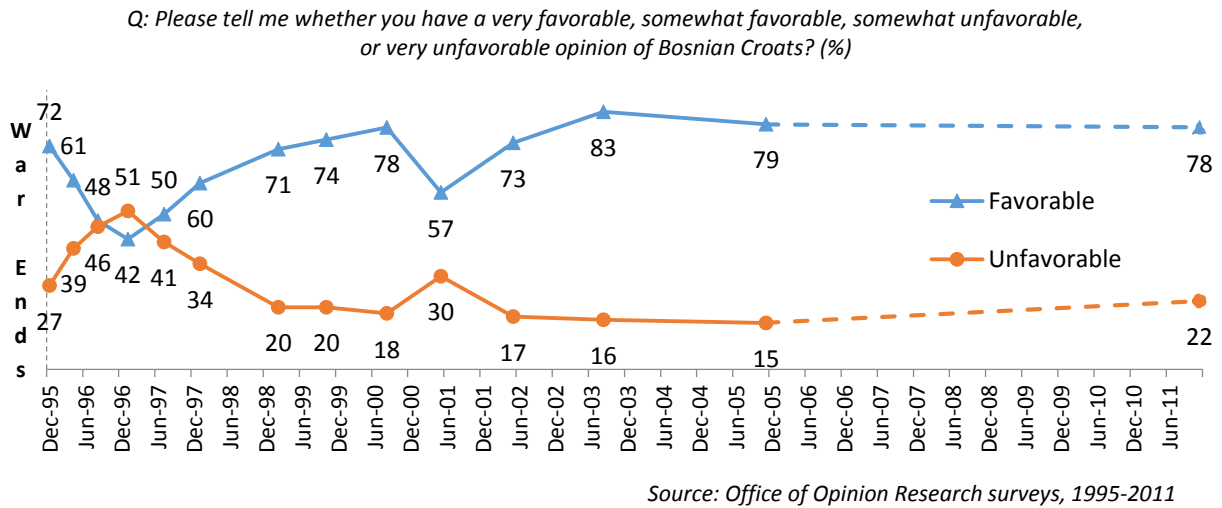


Table 4. Ethnocentrism by Ethnicity and Peacekeeper Region (Dec. 1995)

	Bosniaks		Croats		Serbs	
	(1) Views of In-group	(2) Views of Out-groups	(1) Views of In-group	(2) Views of Out-groups	(1) Views of In-group	(2) Views of Out-groups
peacekeepers	-0.0648 (0.0694)	0.0776 (0.0458)	-0.204 (0.0901)	-0.460 (0.226)	-0.339 (0.222)	0.279 (0.0670)
female	0.0763 (0.0455)	-0.0231 (0.0635)	-0.100 (0.0619)	-0.0631 (0.0474)	-0.0586 (0.0302)	-0.0620 (0.0901)
age	0.000196 (0.00144)	0.00112 (0.00239)	0.000720 (0.00485)	-0.00472 (0.00337)	-0.00944 (0.00633)	0.00360* (0.00103)
education	-0.0741* (0.0197)	-0.0705** (0.0170)	0.0125 (0.0383)	-0.0777 (0.0557)	-0.0337 (0.0244)	0.0135 (0.0167)
refugee	-0.107 (0.0566)	-0.162* (0.0600)	0.0493 (0.215)	0.0398 (0.0954)	-0.117 (0.105)	0.130 (0.0539)
alphaviolence	0.0505 (0.203)	-0.0987 (0.0940)	0.238 (0.139)	0.0935 (0.168)	-0.670 (0.191)	0.0949 (0.0863)
Constant	3.987** (0.0962)	2.410** (0.162)	3.525** (0.259)	2.823** (0.410)	4.645** (0.185)	0.967* (0.200)
Observations	629	629	249	249	297	299
R-squared	0.035	0.030	0.047	0.181	0.122	0.095
adj. r2	0.0261	0.0206	0.0236	0.160	0.104	0.0764

Robust standard errors in parentheses clustered by location

\*\* p<0.01, \* p<0.05

NOTE: Views of In and Out-Groups – “Please tell me whether you have a very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable opinion of: [Bosniaks, Bosnian Croats, Bosnian Serbs]” 1 = very unfavorable to 4 = very favorable. Responses are combined into an additive index for views of out-groups for each ethnic group. Education – 1(no formal education) – 6(advanced, post-secondary). Reported victimization – index of victimization based on self-reported personal injury, injury/death of family members, destruction of personal property, and having fought or family members fighting in the war.

Table 5. Views of NATO Peacekeeping by Ethnicity (Dec. 1995)

VARIABLES	(1) Bosniak support for NATO	(2) Bos. Croat support for NATO	(1) Bos. Serb support for NATO
peacekeepers	0.382** (0.0433)	-0.0587 (0.293)	-0.250 (0.0834)
female	-0.0644 (0.0406)	0.268* (0.0820)	-0.186 (0.140)
age	0.00316 (0.00361)	0.00962* (0.00332)	-0.00174 (0.0102)
education	0.0681** (0.00672)	-0.0252 (0.0315)	0.0519 (0.0455)
refugee	0.0677 (0.0665)	-0.218** (0.0478)	-0.199* (0.0399)
alphaviolence	-0.234 (0.124)	0.273 (0.265)	0.208 (0.122)
Constant	2.978** (0.160)	2.759** (0.299)	1.970 (0.551)
Observations	632	256	300
R-squared	0.081	0.044	0.063
adj. r2	0.0720	0.0212	0.0434

Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05

## Compatibility of Survey and Experimental Measures of Ethnocentrism.

If the UNDP social and political inclusion data, the 1995 USG favorability data, and our own experimental data are measuring a latent ethnocentrism, then we should expect in-group vs. out-group variation in responses to follow similar patterns. The table below shows t-tests for in-group vs. out-group responses to the UNDP and USG survey questions and our experimental behavioral games. The t-tests compare the mean response of in-group members to out-group members. The table shows that all survey and experimental instruments capture similar effects of in-group bias in the data. Subjects generally prefer political and social inclusion of their in-group over out-groups, have more favorable views of in-group members, and are more biased in dictator allocations to in-group members over out-groups. This strengthens the argument that the survey and experimental instruments are capturing an underlying sentiment of ethnocentrism.

A second point is whether the survey and experiment results show similar trends over time. Survey data from the USIA/US government studies suggest that favorability views of out-groups have improved over time, but our experimental data show that in-group biases have become worse over time. The surveys and experiments use comparable sampling methods to obtain subjects, even employing the same firm to conduct subject recruitment in some cases. We would argue that the experimental behavioral measures are more convincing, given that responses to survey questions are non-costly. Subjects can posture about their views of other groups, and the surveys may be capturing important changes in social norms, such that it is becoming less acceptable in Bosnian society to openly claim to have negative views of out-groups in survey interviews. However, the experiments show that when subjects can make decisions with real costs (how to allocate money between themselves and someone else), they still opt to give more to in-groups over out-group

members, and this persists over time. This is partly why we think the behavioral/experimental component of the study is important. The survey results give a more optimistic picture of ethnic divisions in Bosnian society than are perhaps warranted. We think the experiments provide an important caveat to what are otherwise positive trends in views toward out-groups over time.

Another issue for cross-time comparison involves changes in the ethnic composition of the Bosnian population over time. US gov./UNDP surveys stratified sampling by ethnicity, focusing on ethnic majority areas either at the municipal and often at the neighborhood level. It is also true that Bosnia became much less ethnically diverse at the municipal and neighborhood level after the war due to ethnic cleansing and self-selection of groups into more homogenous communities. We attempt to control for the effects of ethnic migration and other population dynamics by comparing the 1991 and 2013 census results. Peacekeeper effects hold when controlling for changes in ethnic composition (See SI Tables 9, 11). We hope that this reduces concerns about our results being driven by sampling effects. If the concern is that homogenous regions were oversampled, our results hold when we include controls for changes in ethnic composition and for our ethnically mixed regions variable, which tries to capture the presence of a politically relevant minority population (greater than 10%) within a municipality. Such minorities were more common before 1991 than after the war.

Table 6. In-group Bias using Alternate Measures of Ethnocentrism

Data Source		In-group Mean (SD)	Out-group Mean (SD)	T-test In-group > out-group		In-group Mean (SD)	Out-group Mean (SD)	T-test In-group > out-group
UNDP	Same State Bosniaks	3.96 (0.26)	3.17 (0.98)	77.89**	Same Neighborhood Bosniaks	3.96 (0.25)	3.15 (0.98)	80.17**
UNDP	Same State Croats	3.96 (0.25)	3.56 (0.79)	36.42**	Same Neighborhood Croats	3.96 (0.24)	3.55 (0.79)	37.02**
UNDP	Same State Serbs	3.91 (0.33)	3.57 (0.81)	34.05**	Same neighborhood Serbs	3.89 (0.39)	3.53 (0.84)	34.03**
US gov.	Favorability Bosniaks	3.71 (0.54)	2.08 (1.09)	35.19**	Exp. Dictator Giving to Bosniaks	4.66 (3.09)	3.37 (2.86)	11.97**
US gov.	Favorability Croats	3.50 (0.61)	2.46 (0.94)	17.16**	Exp. Dictator Giving to Croats	4.19 (3.36)	2.65 (2.72)	9.95**
US gov.	Favorability Serbs	3.46 (0.87)	1.74 (0.93)	28.64**	Exp. Dictator Giving to Serbs	3.50 (2.73)	2.56 (2.42)	8.84**

Table 7. Effects of Peacekeepers/Time on Ethnocentrism by Ethnicity (Logit Regression)

	(1) Serb Subjects	(2) Croat Subjects	(3) Bosniak Subjects
Peacekeeper region	-0.802* (0.319)	-13.45** (1.181)	-0.633** (0.174)
Year 2013	0.699** (0.197)	1.568** (0.264)	0.0755 (0.189)
Year2013*	-0.0780 (0.334)	-0.185 (0.440)	-0.0391 (0.201)
Peacekeepers Regions			
Female	0.244 (0.198)	-0.0862 (0.307)	0.226 (0.295)
Age	-0.0114* (0.00499)	-0.00130 (0.00812)	0.0210** (0.00699)
Education	0.292 (0.316)	0.178 (0.184)	-0.253** (0.0834)
Rural region	0.242* (0.0987)	0.0145 (0.0667)	-0.160 (0.116)
Unemployed	-1.015** (0.293)	-0.145 (0.234)	-0.0809 (0.351)
Ethnically mixed region	-0.122 (0.329)	13.13** (1.173)	2.006** (0.126)
Log(wardeaths)	0.172 (0.146)	-0.0606 (0.164)	0.229** (0.0328)
Constant	-2.116 (1.924)	-0.526 (0.459)	-3.348** (0.758)
Survey Responses	366	323	430
Pseudo-R <sup>2</sup>	0.0865	0.124	0.0486
Log likelihood	-229.1	-195.9	-282.3

Dependent variable: 1 (Exhibiting in-group bias), 0 (Not exhibiting in-group bias)

Robust standard errors clustered by location in parentheses

\*\* p<0.01, \* p<0.05



Table 8. Effects of Peacekeepers on Ethnocentrism by Rural and Ethnically Homogenous Locations (Logit Regression)

VARIABLES	(1) Rural Regions 2003	(2) Rural Regions 2013	(1) Ethnic Enclaves 2003	(2) Ethnic Enclaves 2013
Peacekeeper region	-1.196** (0.323)	-0.851** (0.216)	-0.700* (0.302)	-0.848** (0.164)
Bosnjak	0.533 (0.418)	-0.661 (0.374)	-1.119** (0.266)	
Croat	0.603 (0.373)	-0.399 (0.393)	0.508 (0.615)	0.984** (0.273)
Female	0.159 (0.356)	0.252 (0.464)	0.155 (0.391)	-0.499 (0.449)
Age	-0.00269 (0.0109)	0.00448 (0.0180)	-0.00247 (0.00753)	-0.0208 (0.0287)
Education	0.00381 (0.191)	0.0381 (0.224)	0.197 (0.233)	0.0761 (0.295)
Rural Region	0.158 (0.202)	0.0147 (0.198)	0.246** (0.0890)	0.207 (0.150)
Employed	1.211* (0.584)	-0.184 (0.615)	0.931 (0.646)	-1.248* (0.526)
Student	1.333** (0.502)	0.453 (0.650)	1.112 (0.602)	-1.028 (0.941)
Unemployed	0.272 (0.678)	-0.782 (0.469)	-0.00289 (0.642)	-1.319** (0.431)
Ethnically mixed region	-0.692 (0.495)	0.401 (0.240)	-	-
Log(war deaths)	0.510** (0.190)	-0.334** (0.104)	0.372* (0.187)	0.0941 (0.0863)
Constant	-4.665 (2.464)	3.145 (1.606)	-4.479 (2.576)	1.203 (2.378)
Restriction	Rural Only	Rural Only	Enclaves	Enclaves
Observations	264	146	262	210

Dependent variable: 1 (Exhibiting in-group bias), 0 (Not exhibiting in-group bias)

Robust standard errors clustered by location in parentheses

\*\* p<0.01, \* p<0.05

Table 9. Effects of Peacekeepers on Ethnocentrism, Controlling for Politically Relevant Groups and Ethnic Fractionalization (1991 census vs. 2013 census)

VARIABLES	(1) ingroupbias	(2) ingroupbias
Year 2013	0.470* (0.233)	0.472* (0.238)
Peacekeeper regions	-0.608** (0.216)	-0.525** (0.196)
Year 2013*Peacekeeper regions	-0.158 (0.265)	-0.213 (0.266)
Feeling close to one's ethnicity	0.550** (0.0882)	0.561** (0.0879)
Feeling unsafe around other ethnicities	0.172 (0.0920)	0.171 (0.0979)
Trust in NATO	-0.0688 (0.0546)	-0.0572 (0.0512)
Bosnjak	0.404 (0.323)	0.433* (0.219)
Croat	0.237 (0.163)	0.154 (0.162)
Female	0.195 (0.126)	0.193 (0.118)
Age	0.00502 (0.00564)	0.00535 (0.00581)
Education	0.0590 (0.0987)	0.0652 (0.0978)
Rural region	-0.0376 (0.0875)	-0.0263 (0.0897)
Employed	0.0524 (0.158)	0.0576 (0.152)
Student	0.212 (0.192)	0.242 (0.195)
Unemployed	-0.304* (0.150)	-0.304* (0.149)
Ethfrac91		-0.122 (0.611)
Ethfrac13		0.972 (0.541)
Ethnically mixed region	0.0846 (0.249)	
Log(wardeaths)	-0.0214 (0.0463)	-0.0641 (0.0578)
Constant	-1.689** (0.622)	-1.728** (0.558)

Observations	1,046	1,046
Robust standard errors in parentheses		
** p<0.01, * p<0.05		

Table 10. Logit Regression on In-group Bias using Coarsened Exact Matching on Covariate Imbalances between Peacekeeper and non-Peacekeeper Regions<sup>3</sup>

VARIABLES	(1) ingroupbias
Year 2013	0.500* (0.272)
Peacekeeper regions	-0.695** (0.228)
Year 2013*Peacekeeper regions	0.0680 (0.316)
Bosnjak	0.337 (0.344)
Croat	0.275 (0.182)
Female	0.233 (0.138)
Age	0.00820 (0.00628)
Education	-0.0577 (0.126)
Rural region	0.000703 (0.0918)
Employed	0.161 (0.166)
Student	0.249 (0.185)
Unemployed	-0.162 (0.128)
Ethnically mixed region	-0.187 (0.308)
Log(wardeaths)	0.0540 (0.0549)
Constant	-0.784

<sup>3</sup> See SI Table 1B for imbalances on Bosniaks, Croats, and Urban/Rural subjects. On CEM matching, see Iacus, Stefano M., Gary King, Giuseppe Porro, and Jonathan N. Katz. 2012. "Causal inference without balance checking: Coarsened exact matching." *Political Analysis* 20(1): 1-24.).

	(0.594)
Observations	1,119
adj.r2	0.0429
ll	-738.7
<div style="text-align: center;">           Robust standard errors in parentheses            ** p&lt;0.01, * p&lt;0.05         </div>	

Omitted Variable Bias. International aid could be an important omitted variable. If aid follows peacekeepers, it could serve as a potential confounder of the peacekeeping effect. We do not have a clear picture of levels and changes in international development aid at the municipal level in Bosnia (statistical agencies in Bosnia do not collect such information), but we could potentially look at changes in economic development as one proxy for the effect of international aid, where more aid leads to tangible changes in economic well-being on the ground. In the regression models below, we consider 2 individual level and 3 municipal level variables that account for changes in economic development. The dependent variable is experimental in-group bias. The individual level measure (past income) ask subjects to assess whether their income over the past 12 months has become a great deal worse, stayed the same, or become a great deal better. The individual level measure (future income) deals with the expectation that future income will become worse or better. We also include 3 municipal level measures of economic development based on data from the Statistical Agency of Bosnia-Herzegovina (compiled by Analitika – Center for Social Research Sarajevo <http://www.mojemjesto.ba/en/content/about-my-place-project>). Change in Net Wages represents the % change in municipal level wages between years 2005 and 2013. Unemployment changes represent the % change in municipal level unemployment between years 2005 and 2013, and GDP per capita change is the % change in the GDP per capita between 2007 and 2013 by the municipality as estimated by Bosnia’s Federal Development Planning Institution. 2005 and 2007 were the earliest dates provided for municipal level economic data. Model 1 uses Logit regression

with clustered standard errors by location. Model 2 employs Logit regression with municipal random effects. Both models show robust peacekeeper effects when controlling for these potential confounders. We note in the manuscript now that while we are unable to control for international aid (a potential confounder), our results are robust to changes in municipal level development which might accompany aid flows.

Table 11. Peacekeeper Effects when Controlling for Changes in Municipal Level Economic Development

VARIABLES	(1) ingroupbias	(2) ingroupbias
Year 2013	0.652** (0.243)	0.652** (0.235)
Peacekeeper regions	-0.550** (0.213)	-0.550* (0.257)
Year 2013*Peacekeeper regions	-0.208 (0.264)	-0.208 (0.298)
Feeling close to one's ethnicity	0.520** (0.0965)	0.520** (0.104)
Feeling unsafe around other ethnicities	0.184* (0.0736)	0.184 (0.0939)
Trust in NATO	-0.0841 (0.0521)	-0.0841 (0.0833)
Bosnjak	0.430 (0.426)	0.430 (0.336)
Croat	0.203 (0.367)	0.203 (0.370)
Female	0.149 (0.115)	0.149 (0.147)
Age	0.00816 (0.00555)	0.00816 (0.00551)
Education	0.131 (0.0987)	0.131 (0.0995)
Rural region	-0.0454 (0.106)	-0.0454 (0.0805)
Employed	-0.136 (0.212)	-0.136 (0.240)
Student	0.205 (0.244)	0.205 (0.267)
Unemployed	-0.362* (0.182)	-0.362 (0.243)

Ethfrac91	0.218 (0.412)	0.218 (0.330)
Ethfrac13	-0.102 (0.870)	-0.102 (1.112)
Ethnically mixed region	0.821 (0.683)	0.821 (0.782)
Futureincome	-0.0809 (0.0796)	-0.0809 (0.0760)
Pastincome	-0.0234 (0.0821)	-0.0234 (0.0855)
Change in Net Wages 2005-2013 (Municipal Level)	0.00456 (0.00729)	0.00456 (0.00688)
Unemployment change 2005-2013 (Municipal Level)	0.00224 (0.0147)	0.00224 (0.0172)
GDP per capita change 2007-2013 (Municipal Level)	-0.00254 (0.00513)	-0.00254 (0.00549)
Log(wardeaths)	-0.0936 (0.0826)	-0.0936 (0.113)
Constant	-1.640* (0.779)	-1.640 (1.052)
Municipal-Level Random Effects	No	Yes
Observations	947	947
Number of locales		16

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Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05

Table 12. Ethnocentrism: Experimental Behavior vs. Survey Attitudes (Logit Regression)

	(1) ingroupbias	(2) ingroupbias
Feeling close to one's ethnicity	0.727** (0.0678)	
Feeling unsafe around other ethnicities		0.381** (0.0741)
Female	0.126 (0.123)	0.0645 (0.128)
Age	0.00313 (0.00462)	0.00514 (0.00476)
Education	0.0158 (0.0996)	-0.0208 (0.103)
Rural region	-0.0748 (0.0887)	-0.0746 (0.0835)
Unemployed	-0.390** (0.142)	-0.364* (0.176)
Ethnically mixed municipality	0.150 (0.301)	0.123 (0.312)
Log(wardeaths)	-0.176* (0.0841)	-0.183* (0.0851)
Constant	-0.263 (0.591)	0.260 (0.575)
Survey Responses	1,051	1,115
Pseudo-R <sup>2</sup>	0.0635	0.0296
Log likelihood	-679.6	-746.4

Dependent variable: 1 (Exhibiting in-group bias), 0 (Not exhibiting in-group bias)

Robust standard errors clustered by location in parentheses

\*\* p<0.01, \* p<0.05

Alternative Specifications of the Peacekeeper Variable

Table 13. Manuscript Table 1 with the addition of minor regional peacekeeping operations (UNDP Data 2006-2010)

VARIABLES	Political Inclusion			Social Inclusion		
	(1) Share State with Bosniaks	(2) Share State with Croats	(3) Share State with Serbs	(4) Neighbors with Bosniaks	(5) Neighbors with Croats	(6) Neighbors with Serbs
peacekeepers2	0.332** (0.114)	0.351** (0.0932)	0.386** (0.0850)	0.281** (0.0990)	0.307** (0.0887)	0.370** (0.0818)
time	0.0226 (0.0134)	0.0465** (0.0118)	0.0512** (0.0197)	0.0152 (0.0106)	0.0324** (0.0104)	0.0552** (0.0194)
Bosniak subject		2.070** (0.128)	1.518** (0.108)		1.991** (0.133)	1.546** (0.103)
Croat subject	0.184 (0.103)			0.0449 (0.0848)		
female	0.0930* (0.0419)	0.0197 (0.0663)	0.0135 (0.0580)	0.0851* (0.0366)	-0.00172 (0.0722)	0.0127 (0.0610)
age	0.00269 (0.00332)	0.00418** (0.00131)	0.00177 (0.00280)	0.00404 (0.00354)	0.00460** (0.00141)	0.00235 (0.00267)
education	-0.166** (0.0608)	-0.115** (0.0406)	-0.117 (0.0870)	-0.177** (0.0599)	-0.125** (0.0423)	-0.119 (0.0865)
village	-0.108* (0.0512)	-0.232** (0.0566)	-0.0638 (0.0581)	-0.118* (0.0582)	-0.281** (0.0567)	-0.0822 (0.0643)
Constant 1	-1.606** (0.456)	-0.978** (0.332)	-0.806 (0.566)	-1.852** (0.355)	-1.513** (0.272)	-0.592 (0.563)
Constant 2	-0.610 (0.452)	0.0383 (0.340)	0.156 (0.559)	-0.772* (0.363)	-0.458 (0.272)	0.468 (0.582)
Constant 3	0.743 (0.492)	1.555** (0.334)	1.373* (0.615)	0.532 (0.392)	1.063** (0.270)	1.604** (0.621)
Out-groups Only	Croats, Serbs Only	Serbs, Bosniaks Only	Croats, Bosniaks Only	Croats, Serbs Only	Serbs, Bosniaks Only	Croats, Bosniaks Only
Observations	11,748	16,065	15,330	11,734	16,056	15,324
adj. r2	0.00613	0.122	0.0767	0.00520	0.114	0.0788
ll	-13976	-12100	-12094	-14226	-12279	-12576

Robust standard errors clustered by survey wave in parentheses.  
See SI Table 15 for variable description and coding, \*\* p<0.01, \* p<0.05



Table 14. Summary of Variables (US Government Survey, Dec. 1995)

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**Views of Nato** – “what is your opinion of the decision to deploy 60,000 NATO peacekeeping troops to Bosnia?” 1 = strongly oppose to 4 = strongly support

**Views of In and Out-Groups** – “Please tell me whether you have a very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable opinion of: [Bosniaks, Bosnian Croats, Bosnian Serbs]” 1 = very unfavorable to 4 = very favorable. Responses are combined into an additive index for views of out-groups for each ethnic group.

**Peacekeepers** – 1(site of future peacekeeping forces), 0(no future peacekeepers). Includes major peacekeeping operations (Division, multi-brigade level) comparable to both survey and experimental locations. Note: limited number of sampling locations for comparison.

**female** – 1(women), 0(men)

**education** – 1(no formal education) – 6(advanced, post-secondary)

**refugee** – 1(refugee/idp), 0(not refugee/idp)

**alphaviolence** – index of victimization based on self-reported personal injuries, injury/death of family members, destruction of personal property, and having fought or family members fighting in the war.

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Table 15. Summary of Variables (UNDP Data 2006-2010)

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**Same State with Out-Group** – How acceptable/unacceptable is it for you to live in the same state with [Serbs, Croats, Bosniaks]? [1 = completely unacceptable to 4 = completely acceptable]

**Neighbors with Out-group** - How acceptable/unacceptable is it for [Serbs, Croats, Bosniaks] to live in your neighborhood? [1 = completely unacceptable to 4 = completely acceptable]

**Peacekeepers** – 1(presence of peacekeeping forces), 0(no peacekeepers). Includes major peacekeeping operations (Division, multi-brigade level) comparable to both survey and experimental locations

**Peacekeepers2**– 1(presence of peacekeeping forces), 0(no peacekeepers). Includes major peacekeeping operations (Division, multi-brigade level) including some additional minor peacekeeping operations (battalion level) not included in the experimental locations.

**female** – 1(women), 0(men)

**age** – age in years

**education** – 1(no formal education) – 4(advanced, post-secondary)

**rural** – 1(rural sampling location) – 0(urban/suburban sampling location)

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Table 16. Summary of Variables (2003, 2013 Behavioral Experiments)

Variable Measurement and Descriptive Statistics		
	Peacekeeper Regions	Non-Peacekeeper Regions
Percentage of respondents		
<b>Ingroup bias</b> – 1(sending more money to your own group), 0(not sending more money to your own group)	38%	55%
<b>Year</b> - 1(2013), 0=(2003)	32%	50%
<b>Feeling close to one’s ethnicity</b> – How close do you feel to people of your ethnicity compared to others in Bosnia? 1(no real difference), 2(somewhat closer to my ethnic group), 3(much closer to my ethnic group) – percentages represent those who feel somewhat or much closer	53%	67%
<b>Feeling unsafe around other ethnicities</b> – How safe do you feel in the presence of members of other ethnic groups in Bosnia? 1(very safe) to 4(very unsafe) – percentages represent those who feel somewhat or very unsafe.	35%	47%
<b>Trust in NATO</b> – 1(Highly distrust), 4(Highly trust). Percentages represent those who generally or highly trust NATO.	54%	51%
<b>Serb</b> – 1(Serbs), 0(other)	29%	37%
<b>Croat</b> – 1(Croats), 0(other)	23%	37%
<b>Bosniak</b> – 1(Bosniaks), 0(other)	47%	26%
<b>Female</b> – 1(women), 0(men)	47%	42%
<b>Education</b> – 1(primary) – 4(advanced, post-secondary) percentages represent high school graduates	88%	82%
<b>Rural region</b> – 1(urban), 4(village), Percentages represent those living in a small town or village	8%	23%
<b>Employed</b> - 1(working full time), 0(other)	36%	33%
<b>Student</b> – 1(student), 0(other)	26%	18%
<b>Unemployed</b> – 1(unemployed), 0(other)	25%	29%
<b>Ethnically mixed region</b> – 1(ethnic minority group population over 10 percent), 0(other)	74%	36%
Mean value among respondents		
<b>War deaths</b> – Number of war deaths by region	3,864	1,329
<b>Age</b> – Respondent age in years, 18–77 in 2003, 18–82 in 2013	35	37
<b>Victimization – 2013 only.</b> index of victimization (alpha = 0.70) based on self-reported exposure to violence, personal injury, injury or death of family members, injury or death of close friends, close friends and family still missing from the conflict. (min = 1, max = 2.25)	1.54	1.62
<b>Past income</b> – survey measure of self-assessment of past income over the past 12 months, responses range from 1	3.09	3.20

= become a great deal worse to 5 = become a great deal better.

<b>Futureincome</b> – survey measure of self-assessment of income expectations over next 12 months, responses range from 1 = become a great deal worse to 5 = become a great deal better.	2.95	3.05
<b>Ethfrac91</b> – municipal level ethnic fractionalization index based on 1991 census (0 = low frac to 1 = high frac)	0.67	0.52
<b>Ethfrac13</b> – municipal level ethnic fractionalization index based on 2013 census (0 = low frac to 1 = high frac)	0.37	0.34
<b>Change in Net Wages</b> – municipal level % change in net wages between 2005 and 2013. Ranges from 21% increase to 100% increase	50.3	58.9
<b>Unemployment change</b> – municipal level % change in unemployment between 2005 and 2013. Ranges from -23% decrease to 7.5% increase	-0.14	-3.88
<b>GDP per capita change</b> – municipal level % change in GDP per capita between 2007 and 2013. Ranges from -19% decrease to 77.5% increase	8.3	28.3
Survey Responses	653	476

Table 17. Treatment Effect Estimation of the Effect of Peacekeepers on In-group Bias in the Dictator Game

A. Regression Adjustment

ATE	Coef.	Std. Err.	z	P> z	[95% CI]
Peacekeepers = 1 vs. 0	-0.18	0.04	-4.32	0.000	-0.26 -0.10

B. Inverse Probability Weighted Regression Adjustment

ATE	Coef.	Std. Err.	z	P> z	[95% CI]
Peacekeepers = 1 vs. 0	-0.24	0.04	-5.78	0.000	-0.32 -0.16

C. Inverse Probability Weighting

ATE	Coef.	Std. Err.	z	P> z	[95% CI]
Peacekeepers = 1 vs. 0	-0.20	0.03	-5.79	0.000	-0.26 -0.13

D. Propensity Score Matching

ATE	Coef.	Std. Err.	z	P> z	[95% CI]
Peacekeepers = 1 vs. 0	-0.17	0.03	-5.28	0.000	-0.23 -0.11

Note: Models A-C control/adjust for covariates: year, ethnicity, gender age, education, urban/rural location, unemployed, ethnically mixed regions, and war-deaths by municipality. Model D. adjusts for imbalances between Bosniaks, Croats, and Urban/Rural subjects between peacekeeper vs. non-peacekeeper regions (SI Table 1B).

### **UNPROFOR Peacekeepers in Bosnia (1992-1995)**

The war-time United Nations Protection Force (UNPROFOR) mission that began in 1992 under UNSCR 1031 ended in 1995 with the signing of the Dayton Accords. UNPROFOR was much more limited in scope and capacity than subsequent NATO peacekeeping forces. UNPROFOR's mandate in Bosnia included providing aid to Sarajevo, escorting humanitarian aid convoys, protecting safe areas (Sarajevo, Tuzla, Bihac, Gorazde, Srebrenica, Zepa). Figures 11 and 12 indicate the location of UNPROFOR forces in 1993 and 1995 respectively. See Berkowitz 1994; Pushkina 2006; and Daadler 2014 for discussion of UNPROFOR's role in Bosnia.

Berkowitz, Bruce D. 1994. "Rules of engagement for UN peacekeeping forces in Bosnia." *Orbis* 38.4 (1994): 635-646.

Daalder, Ivo H. 2014. *Getting to Dayton: the making of America's Bosnia policy*. Brookings Institution Press, 2014.

Pushkina, Darya. 2006. "A recipe for success? Ingredients of a successful peacekeeping mission." *International Peacekeeping* 13.2 (2006): 133-149.

Figure 11. UNPROFOR Deployments in Bosnia (circa early 1993).





## **Experimental Protocols for Bosnia**

### **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, 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 relatively 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 QUESTIONNAIRE]. 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 (In-Group Recipient)\_

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 banknotes, 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 banknotes, 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 notes 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 BANKNOTES and 0 blank slips of paper in your “keep” envelope. In the “send” envelope you would then put 0 BANKNOTES and 10 blank slips of blank paper. Or you could

decide to put 7 BANKNOTES in your “keep” envelope, with 3 blank slips of paper. You would then put 3 BANKNOTES 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 (Out-group Recipient)

You will again receive two envelopes, 10 BANKNOTES 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 BANKNOTES, 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 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.>*

## 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.