Inter-Ethnic Trust in Conflict-Affected Societies: Bosnia and Herzegovina and the North Caucasus Region of Russia

Michael D. Ward
Department of Political Science
University of Washington
Seattle, WA, USA

John O'Loughlin
Department of Geography
and
Institute of Behavioral Science
University of Colorado
Boulder, Colorado, USA

Kristin M. Bakke
Department of Political Science
University of Washington
Seattle, WA, USA

Xun Cao
Department of Political Science
University of Washington
Seattle, WA, USA

Date: April 4, 2007

Authors' Note: Our biggest thanks are to the respondents in Bosnia and the North Caucasus region who graciously answered our questions. We also are grateful to Marina Francic and Dino Djipa of Prism Research in Sarajevo, as well as Alexei Grazhdankin of the Levada Center in Moscow for organizing and successfully carrying out the large and complex surveys in Bosnia and the North Caucasus; Vladimir Kolossov of the Russian Academy of Sciences for his insights and fieldwork leadership, his contribution to the design and wording of the questionnaire, and his continuing friendship and collegiality; Frank Witmer for his cartographic and GIS skills, and blistering speed; Gerard Toal of Virginia Tech University for his contribution to the survey instrument design, insights into Bosnia political and social life, fieldwork comradeship in both places, and for his pursuit of Stakhanovite principles of research output; Kyle Joyce; Brian D. Greenhill; and Kristian Skrede Gleditsch. We would also like to thank Susan Woodward for her comments on an earlier version of this manuscript at the Annual Meeting of the American Political Science Association in Philadelphia, 30 August-3 September 2006. This research was supported by the US National Science Foundation (grant number 0433927), via its Cross Directorate Initiative in Human and Social Dynamics, and we have been aided by the support and encouragement of our program officers at NSF, including Tom Baerwald, Rachelle Hollander, Pat White, and Frank Scioli. Thanks also go to Gary King of Harvard University and Jonathan Wand of Stanford for advice on the use and presentation of conditional hierarchical ordered probit models. Despite all of this advice and help, some errors or missteps may remain. For these, we take full credit.

Abstract

We examine inter-ethnic trust in Bosnia and the North Caucasus region of Russia, two ethnically diverse, post-communist societies, which at times have been racked by inter-ethnic and/or separatist conflicts. We survey attitudes and preferences towards the contemporary situation, revealing that there is substantial inter-ethnic trust in the North Caucasus, while the Bosnian respondents are in general less trusting. Consistent with research in social psychology, we find that respondents who do not express strong ethnic pride and with friends from a variety of ethnic backgrounds are more likely to trust members of other national groups. Furthermore, respondents who doubt that the current situation is improving are less likely to say they trust members of other ethnic groups. While we expected personal experiences with ethnic violence to have a negative impact on inter-ethnic trust, we find the opposite: Survey respondents with personal experiences of ethnic violence are *more likely* to express trust in members of other ethnic groups. To further examine these results, we investigate differences across ethnic groups in the two survey regions. In order to improve the validity and comparability of survey responses from people of different (cultural, economic, and social) backgrounds, we use an anchoring vignette, a technique that measures and corrects for response category incomparability, allowing for a better comparison of responses among and across these two societies.

Introduction

Imagine that your daughter has lost her eyesight in a bomb explosion, your house and village have been destroyed in air raids, and you have been forced to resettle far away from your ancestral home. You live in a small one-bedroom apartment in a large city with your four children, and you cannot find a job because, presumably, the ethnic group you belong to is associated with terrorist activities.[1] All of this is the result of a long and bloody civil war, which at times have pitted people of different ethnic origins against each other. Given this scenario, are you likely to trust members of other ethnic groups? Moreover, while you may (still) trust people irrespective of their ethnic background, why do some of your friends, who lived through the same conflict, discard inter-ethnic trust? Enduring social conflicts are not only hard to endure but are enduring. Indeed, perhaps the larger question is how they endure. What happens to people and their attitudes and social interactions as a result of civil conflict?

These are the questions that motivate this study. Conventional wisdom, as well as extensive scholarship on social capital and conflict, suggests that societies where people and different ethnic groups have (been) mobilized in violent struggle against one another are unlikely to be characterized by interpersonal and inter-ethnic trust.[2] Yet, we have very little systematic empirical knowledge about trust in societies affected by violent conflict. In this study, we use survey data from two conflict-affected societies, Bosnia and Herzegovina and the North Caucasus region of Russia, to investigate differences in inter-ethnic trust. The surveys were carried out during December 2005, and the number of respondents was 2,000 in each site. In order to improve the validity and comparability of survey responses from people of different (cultural, economic, and social) backgrounds, we use an anchoring vignette, a

[1] Recounted to one of the authors in Moscow during May of 2005

[2] Susan Woodward, 'Bosnia and Herzegovina: How Not to End Civil War', in Barbara F. Walter and Jack Snyder, eds, *Civil wars, Insecurity, and Intervention* (New York: Columbia University Press, 1999), pp. 73-115; Karen S. Cook, Russell Hardin and Margaret Levi, *Cooperation Without Trust?* (New York: Russell Sage Foundation, 2005).

technique that measures and corrects for response category incomparability, allowing for a better comparison of responses among and across these two societies.[3]

To preview our conclusions, in our statistical analysis we find that a number of attitudinal variables affect respondents' trust in members of ethnic groups other than their own. Consistent with research in social psychology, we find that respondents who do not express strong ethnic pride and with friends from a variety of ethnic backgrounds are more likely to trust members of other national groups. Furthermore, respondents who doubt that the current situation is improving are less likely to express trust in members of other ethnic groups. While we expected personal experiences with ethnic violence to have a negative impact on inter-ethnic trust, we find the opposite: Survey respondents with personal experiences of ethnic violence are *more likely* to say they trust members of other ethnic groups. However, upon closer investigation, we find that irrespective of personal experiences of violence, members of certain ethnic groups are more likely to express inter-ethnic trust than others. On average, some North Caucasian groups (Ossetian, Kabardin, and Dargin respondents) are more trusting of other ethnic groups than respondents in Bosnia or, for that matter, than ethnic Russians. Thus, conflict has differential effects for different groups: For some groups, a conflictual environment is associated with greater inter-ethnic trust, while for others, the same environment is a constraint on trust. Note that we do not study the specifics of which groups may or may not trust other specific groups; rather we examine the self-reports of generic levels of inter-ethnic trust. The only socio-economic factor that plays a role is education: As expected, the respondents with higher education are more likely to express trust in members of other national groups.

The article has three major contributions. Theoretically, it speaks to the social capital and conflict literatures by examining the determinants for inter-ethnic trust in a cross-country,

[3] Gary King, Christopher J.L. Murray, Joshua A. Salomon and Ajay Tandon, 'Enhancing the Validity and Cross-Cultural Comparability of Measurement in Survey Research', *American Political Science Review* 98 (2004), 191-207.

large-n analysis. Our goal is not to develop a theory of inter-ethnic trust but to assess the merits of existing theories in conflictual settings. Empirically, the study is the first to make use of comparative survey data from two of the most conflictual regions in the post-Cold War era. It also reports on the first scientific survey of the broad North Caucasus region (minus Chechnya and Ingushetia) of Russia. Methodologically, the study incorporates new techniques aimed at improving the validity of the conclusions we can draw from research relying on survey data.

The Cases: Conflict History and Comparability

Bosnia and the North Caucasus are ethnically diverse, post-communist societies, where the different ethnic groups at times have co-existed peacefully and at other times have found themselves at odds with one another or their governments.[4] In the spring of 1992, civil war broke out in Bosnia and Herzegovina, when the former Yugoslav republic's three constituent ethnic groups—the Croats, Serbs, and Bosnian Muslims (Bosniacs)—failed to agree on the political future of the republic after the unraveling of Yugoslavia in 1991. Were they to remain part of Yugoslavia along with Serbia, Montenegro, and Macedonia? Were they to seek independence as a multinational state? Or, were each of the different ethnic groups to seek independent statehood, as occurred in Croatia and Slovenia?[5] In a referendum in March 1992, the Croats and Muslims in the Bosnian population overwhelmingly voted in favor of secession from Yugoslavia, and the chairman of the republic's coalition government and head of the main Bosnian Muslim party (the Party of Democratic Action), Alija Izetbegović, declared the republic independent. However, the large Bosnian Serb minority, who favored

[4] They share a communist background. Bosnia, now an independent country, was a republic in the former Yugoslavia, while the republics and oblasts in the North Caucasus are located in one of the former Soviet republics, Russia.

[5] Woodward, 'Bosnia and Herzegovina: How Not to End Civil War', p. 77.

remaining part of Serb-dominated Yugoslavia,[6] boycotted the elections and staged protests and attacks against Muslim towns. While this initially pitted Croats and Muslims against the Serbs, the conflict soon developed into a violent territorial struggle among these three ethnic groups. The Serbs, Croats, and Muslims each engaged in ethnic cleansing strategies in Bosnia, although the enormity of the Serb actions was notably larger and more extreme.[7] The International Criminal Tribunal for the former Yugoslavia estimates that more than 100,000 people lost their lives in Bosnia between 1992 and 1995, and more than two million fled abroad. Even though most of these are now believed to have returned, the internal displacement of ethnic groups is believed to be extensive and widespread. The Dayton accords in 1995 set up a process of military demobilization and carved Bosnia and Herzegovina into a loose federation between the Muslim-Croat dominated Federation of Bosnia and Herzegovina and the Serb dominated Republika Srpska. Importantly, they brought the war to an end and institutionalized the promise that all refugees had the right to return to their prewar homes.[8] Recent elections, in October 2006, have confirmed the ossification of ethnic divisions in electoral preferences and the failure of cross-ethnic party appeals.

[6] In 1990, the ethnic make-up of Bosnia was as follows: 43.7 per cent Muslims, 31.4 per cent Serbs (or 40 per cent if one includes those that identified as 'Yugoslavs' when Yugoslavia fell apart in 1991), and 17.3 per cent Croats. See Woodward, 'Bosnia and Herzegovina: How Not to End Civil War', p.82.

[7] The United Nations' International Criminal Tribunal for the former Yugoslavia (ICTY) in the Hague has formally ruled that Bosnian Serbs engaged in genocide in the Srebrenica massacre of July 1995, where more than 8,000 Bosnian Muslim men were executed

[8] Minority returns is a purely technical term referring to persons who have returned to their pre-conflict municipalities, currently dominated by (an)other constituent people(s) of Bosnia. UNHCR reports that from 1996 to the end of September 2006, the grand total is 457,054. Available at http://www.unhcr.ba/return/pdf%202006/SP_09_2006.pdf.

In the North Caucasus, an ethnically diverse area of the Russian Federation,[9] the main conflict region is Chechnya, where civil war broke out in 1994 when Moscow responded to Chechen demands for independence with military force. In neighboring Ingushetia and North Ossetia, tensions led to violent conflict in the early 1990s. In 1992, informal militias representing the Ingush population concentrated in North Ossetia's Prigorodny Raion clashed with North Ossetian militias, both sides laying claim to the territory. The violent phase of the conflict, which was relatively short-lived, resulted in a large outflow of Ingush settlers from North Ossetia. While not resolved and still a politically hot topic, this conflict has not resulted in large-scale violence since November 1992.[10] Since the late 1990s, the major source of conflict in the North Caucasus has been the war in Chechnya. By 1999 that conflict increasingly began to spill over into the neighboring regions, in particular Dagestan,

[9] Like the Soviet Union, post-Soviet Russia is a layer-cake of autonomy. The Russian Federation consists of 89 subunits, typically referred to as regions—21 republics, 49 *oblasts*, six *krais*, two federal cities, ten autonomous *okrugs*, and one autonomous *oblast*—with equal representation at the federal level, although they differ in their degree of autonomy. The republics, the autonomous *okrugs,* and the autonomous *oblast* (32 of 89 regions) are ethnically-defined, which means that they are named after one (or two) ethnic group(s), even though, in several cases, that ethnic group does not make up the majority of the population in its designated region. Indeed, most of the ethnic regions are home to relatively large minorities. For example, according to the 2002 Census, the ethnic make-up of North Ossetia is as follows: 62.7 per cent Ossetians, 23.2 per cent Russians, 3 per cent Ingush, 2.4 per cent Armenians, 1.8 per cent Kumyks, 1.5 per cent Georgians, 0.7 per cent Ukrainians, and 0.5 per cent Chechens. The (geographical and economic) area known as the North Caucasus includes the following regions: Adygeya (republic), Chechnya (republic), Dagestan (republic), Ingushetia (republic), Kabardino-Balkaria (republic), Karachay-Cherkessia (republic), Krasnodar (*krai*), North Ossetia (republic), Rostov (*oblast*), and Stavropol' (*krai*). Chechnya and Ingushetia were off-limits to our interviewers, owing to dangers therein.

[10] See, for example, Liz Fuller, 'Are Ingushetia, North Ossetia on Verge of New Hostilities?' *Caucasus Report: RFE/RL Reports,* 27 March 2006. Available http://www.rferl.org/reports/caucasus-report/2006/03/11-270306.asp.

Ingushetia, and Kabardino-Balkaria, each of which also faces its own internal conflict(s). A number of observers claim that Chechnya as well as other parts of the North Caucasus are increasingly outside the Kremlin's control.[11]

According to one estimate, at least 17 insurgent organizations of varying sizes (50-2000 members) are currently active in the Northern Caucasus.[12] Moscow's federal envoy in the region, Dmitry Kozak, claims that the conflicts in the North Caucasus are spurred by corruption, poverty and unemployment, clan-based rivalries and power struggles, while observers of the region also point to readily available weapons, radical Islamist forces, and religious discrimination as contributing factors.[13] Although the populations in both Bosnia

---

[11] Pavel K. Baev, 'Shifting Battlefields of the Chechen War', *Jamestown Foundation's Chechnya Weekly*, 20 April 2006. Available at http://jamestown.org/publications_details.php?volume_id=416&issue_id=3697&article_id=2371008; John B. Dunlop and Rajan Menon, 'Chaos in the North Caucasus and Russia's Future', *Survival* 47 (2006), 97-114; Kramer, Mark, 'Guerrilla Warfare, Counterinsurgency, and Terrorism in the North Caucasus: The Military Dimension of the Russian-Chechen Conflict', *Europe-Asia Studies* 57 (March 2005), 209-90.

[12] Jason M. K. Lyall, 'Landscapes of Violence: A Comparative Study of Insurgency in the Northern Caucasus', presented at the annual meeting of the Midwest Political Science Association, Chicago, 20-23 April 2006.

[13] Many accounts are available in the scholarly as well as popular press. See Mikhail Roshchin, 'The History of Islam in Kabardino-Balkaria', *Jamestown Foundation's Chechnya Weekly,* 8 December 2005. Available at http://jamestown.org/publications_details.php?volume_id=409&issue_id=3556&article_id=2370581; Oliver Bullough, 'Anger Drives Muslim Insurgents in Russia's South', *Johnson's Russia List,* 7 December 2005; Andrei Smirnov, 'From Chechnya to Dagestan: Basaev's Second Front against Russia', *Jamestown Foundation's Chechnya Weekly,* 15 September 2005. Available at http://www.jamestown.org/publications_details.php?volume_id=409&issue_id=3458&article_id=2370228; Robert Bruce Ware, 'Recent Russian Federal Elections in Dagestan: Implications for Proposed Electoral Reform', *Europe-Asia Studies* 57 (2005), 583-600; Walter Mayr, 'A Breeding Ground of

and North Caucasus have experienced inter-ethnic violence, Bosnia has been the scene of ethnic cleansing and genocide in the form of rapes and murders on a scale not seen in the North Caucasus. At least since the late 1990s, the North Caucasus has been characterized by violence directed at Russian military targets, local police, and government officials rather than civilians,[14] although there has been a considerable number of kidnapping of civilians, both at the hands of the Russian security forces and the militia under the control of Moscow's puppet in Chechnya (and the republic's new president) Ramzan Kadyrov.[15] This mix of shared background characteristics (post-communism, ethnic diversity, and conflict history) but variation in terms of timing and type of violence allows us to comparatively investigate the effects of violence and competing explanations of inter-ethnic trust in conflict-affected societies.

Literatures and Hypotheses

The social science literature that most extensively has addressed the determinants and effects of inter-ethnic trust is based on the idea of social capital. Scholars have examined the ways in which interpersonal trust may affect social order and governance[16], transitions to

---

Radicalism in Southern Russia, *Der Spiegel,* 27 October 2005; Kimitaka Matsuzato and Magomed-Rasul Ibragimov, 'Islamic Politics at the Subregional Level in Dagestan: Tariqa Brotherhoods, Ethnicities, Localism, and the Spiritual Board', *Europe-Asia Studies* 57 (2005), 753-79.

[14] Lyall, 'Landscapes of Violence: A Comparative Study of Insurgency in the Northern Caucasus'.

[15] Violence in Chechnya has dwindled since 2005 and the scale of violence is presently lower than in the first Chechen war (1994-1996). Just this February, the Russian Defense Minister declared that Moscow had succeeded in its latest war in Chechnya, although there are still news reports about violent clashes and kidnappings. See "Russian Official Says Insurgency in Chechnya Has Been Tamed," *New York Times,* 12 February 2007.

[16] Cook, Hardin and Levi, *Cooperation Without Trust?*

democracy and market economy,[17] economic development and prosperity,[18] as well as the likelihood of peace and conflict. Indeed, restoring trust in post-conflict societies is a key step in the rebuilding of societal exchange and compromise.[19] Similarly, writing on the conflicts in the former Yugoslavia, many argue that inter-ethnic contact, cooperation, and trust may be central to encourage inter-ethnic tolerance and political stability in diverse societies.[20]

---

[17]János Kornai, Bo Rothstein and Susan Rose-Ackerman, *Creating Social Trust in Post-Socialist Transition* (New York: Palgrave-Macmillan, 2004).

[18] Stephen Knack and Philip Keefer, 'Does Social Capital Have An Economic Payoff?' A Cross-Country Investigation', *The Quarterly Journal of Economics* 112 (1997), 1251-88.

[19] See Jennifer Widner, 'Building Effective Trust in the Aftermath of Severe Conflict', in Robert I. Rotberg, ed, *When States Fail: Causes and Consequences* (Princeton: Princeton University Press, 2004), pp. 222-236, p. 222. Violent conflict may engender a certain type of trust, as external threats to a community (such as an ethnic group) 'may create greater dependency within the network or community, and mobilization for change may create new trust relations and new bases for co-operation'. See Cook, Hardin and Levi, *Cooperation Without Trust?* p. 168. This kind of within-group trust is often assumed to be an obstacle to society-wide trust, which in turn is assumed to help prevent conflict. However, based survey data from Russia shows that in-group or 'particularistic' trust does not prevent the formation of cross-ethnic trust. See Donna Bahry, Mikhail Kosolapov, Polina Kozyreva and Rick K. Wilson, 'Ethnicity and Trust: Evidence from Russia', *American Political Science Review* 99 (2005), 521-32.

[20] Garth Massey, Randy Hodson and Dŭsko Sekulić, 'Ethnic Enclaves and Intolerance: The Case of Yugoslavia', *Social Forces* 78 (1999), 669-93; Paula Pickering, 'Generating Social Capital for Bridging Ethnic Divisions in the Balkans: Case Studies of Two Bosniac Cities', *Ethnic and Racial Studies* 29 (2006), 79-104. Similar works on the Yugoslav wars show that the war itself and, especially, elite manipulations cause rising intolerance. See Randy Hodson, Duško Sekulić and Garth Massey, 'National Intolerance in the Former Yugoslavia', *American Journal of Sociology* 99 (1999), 1534-58: Robert Kunovich and Randy Hodson, 'Conflict, Religious Identity and Ethnic Intolerance in Croatia', *Social Forces* 78 (1999), 643-74; Duško Sekulić, Garth Massey and Randy Hodson, 'Ethnic Intolerance and Ethnic Conflict in the Dissolution of Yugoslavia', *Ethnic and Racial Studies* 29 (2006),

Although the international relations literature on the security dilemma in ethnic conflicts does not address inter-ethnic trust per se,[21] implicit in the argument is the idea that a security dilemma emerges when the two parties at odds cannot trust each other. As pointed out by Andrew H. Kydd, the cornerstone of Hobbes' argument is the anarchical state of nature where no one can trust one another.[22] Along these lines, Barry R. Weingast argues that preventing ethnic violence requires mutual trust, which is the result of political institutions that credibly commit the state and its ethnic groups not to take advantage of each other: 'Trust results when institutions make it far less likely that one group will be able to capture the state and take advantage of the other. Trust can therefore be constructed and institutionalized, which will greatly reduce the chances of explosive violence due to fears of victimhood'.[23] Whether trust needs to be constructed or is more of a natural societal trait, one frequently stated hypothesis is that trust facilitates peace and, conversely, that conflict destroys trust. Given the importance of trust, what do we know about the factors that are likely to bring about or promote trust, in particular inter-ethnic trust, in post-conflict and otherwise conflict-affected societies?

The study's main hypotheses concern the impact of experiences of violence. Most research on post-conflict societies assumes that violent conflict damages or destroys

---

797-827. The blame for intolerance attributed to elite manipulation of the 'ethnic card' that promotes competition follows the tradition of works such as Charles Ragin, 'Ethnic Political Mobilization: The Welsh case', American *Sociological Review* 44 (1979), 619-35, and it is also identified as a prime mover of post-Soviet conflicts by Valery Tishkov, 'Ethnic Conflicts in the Former USSR: The Use and Misuse of Typologies and Data', *Journal of Peace Research* 36 (1999), 571-91.

[21] Barry Posen, 'The Security Dilemma and Ethnic Conflict', *Survival* 35 (1993), 27-47.

[22] Andrew H. Kydd, *Trust and Mistrust in International Relations* (Princeton: Princeton University Press, 2005), pp. 12-13.

[23] Barry R. Weingast, 'Constructing Trust: The Political and Economic Roots of Ethnic and Regional Conflict,' in Karol Soltan, Eric M. Uslaner and Virginia Haufler, eds, *Institutions and Social Order* (Ann Arbor: The University of Michigan Press, 1999), pp. 163-200, p. 165.

interpersonal trust.[24] In particular, if a violent conflict pits people of different ethnic backgrounds against one another, we would expect inter-ethnic trust to be low.[25] As discussed above, the conflict in Bosnia led to some of the most gruesome atrocities since World War II, making terms such as 'ethnic cleansing' and 'genocide' common in our everyday vocabulary. While killings and torture of civilians have been substantial and commonplace in the conflicts in the North Caucasus as well,[26] these conflicts have primarily pitted rebel groups against either the military and police of the federal government in Moscow or sub-national *oblast* or republic governments. Some of these governments are associated with or represented by a majority ethnic group, but the North Caucasus conflicts have nonetheless had less of an inter-ethnic organizational character than the war in Bosnia, where the scale of ethnically organized armies and militias were much higher. [27] Thus, we might expect that beliefs in inter-ethnic

[24] See Widner, 'Building Effective Trust in the Aftermath of Severe Conflict'; Daniel N. Posner, 'Civil Society and the Reconstruction of Failed States', in Robert I. Rotberg, ed, *When States Fail: Causes and Consequences* (Princeton: Princeton University Press, 2004), pp. 237-55.

[25] We would like to reiterate, that I this study, we have only a generic inter-ethnic trust measure and not one specifically targeted towards those who committed the violence, although one would assume that people who are the victims of violence from any one other ethnic group would respond with little inter-ethnic trust in general.

[26] See, for example, the account of the late Russian journalist Anna Politkovskaya, *A Small Corner of Hell: Dispatches from Chechnya* (Chicago: University of Chicago Press, 2003). See also Human Rights Watch and Amnesty International's documentation on Chechnya, available at http://www.hrw.org/doc?t=chechnya and http://www.amnesty.org/russia/chechnya.html.

[27] A note of caution: This is *not* to say that inter-ethnic tensions have been absent from the North Caucasus, but that the conflicts in general, have had more of a separatist or irredentist nature. According to Stepanov at the Institute of Ethnology and Anthropology of the Russian Academy of Sciences, the North Caucasus has seen three types of conflict: Outright separatism, as in the case of Chechnya; intra-ethnic competition and conflict over the use of land; and 'intra-federal attempts at secession,' as in the case of Karachay-Cherkessia and Kabardino-Balkaria, and irredentism, as the case of Ingush claims over the Prigorodny district in North Ossetia. While the latter conflict, for example,

trust would be higher among ethnic groups in the North Caucasus than in Bosnia. If, however, it is the case that 'time heals all wounds', we would expect that the further in the past the violence took place, the more likely people are to discard such cooperation. Based on this logic, would a respondent from Bosnia be more likely to exhibit faith in cooperation than a respondent from the North Caucasus, where violence has continued since 1999, although at lower levels? We recognize that the cultural context is different and that the same question may engender different responses in these two societies; accordingly, we use an anchoring vignette to adjust responses to a common, underlying framework (discussed below).

These two explanations linking violence and inter-ethnic trust address group-level variables and fail to consider that not everyone who lives through a conflict experiences violence first-hand. Indeed, we would expect that someone who has personally experienced or witnessed—or who has a close family member who has experienced or witnessed—an instance of ethnic violence is less likely to trust people of different ethnic origin than a person without that kind of experience. In a study of trust in the United States, Alberto Alesina and Eliana La Ferrara find that recent traumatic experiences are associated with low levels of interpersonal trust.[28] To assess this hypothesis, we include a variable that measures a respondent's answer to the question about whether she/he or her/his family has witnessed an incident of nationalist violence.[29]

---

has led to Ingush-Ossetian hostilities, the conflict is rooted in the Ingush's struggle against the North Ossetian government. See Valery Stepanov, 'Ethnic Tensions and Separatism in Russia.' *Journal of Ethnic and Migration Studies* 26 (2000).

[28] Alberto Alesina and Eliana La Ferrara, 'Who Trusts Others?' *Journal of Public Economics* 85 (2002), 207-34.

[29] Like all survey measures this is a self-report, and may suffer from some measurement error. In particular, we recognize that many respondents may *experience* things via electronic media or other non-direct ways. Unfortunately, we have no way of knowing the extent of such over-reporting, nor how it is distributed across different groupings of individuals. For instance, we suspect that some of the North Ossetians who claim to have a personal experience of violence may consider the televised

In addition, a number of non-violence related variables might help explain individual variation in the degree of inter-ethnic trust. Drawing on Robert Putnam's work,[30] Karen S. Cook, Russell Hardin, and Margaret Levi see trust primarily as the result of contextual factors, in particular 'ongoing relationships in which the individuals have personal knowledge of each other or knowledge acquired through inclusion in a well-connected network'.[31] Personal relationships and networks of social relations influence trust by providing individuals with information about each other (reputation mechanism). This gives each individual in the network the chance to punish non-trustworthy individuals by passing on negative information to the others in the network (sanction mechanism). In a related vein, in his work on inter-ethnic violence in India, Ashutosh Varshney finds that in localities where Hindus and Muslims regularly meet through networks such as professional associations, business organizations, reading and film clubs, sports clubs, unions, NGOs, and political parties, ethnic violence is less likely to occur than in societies where this type of civic engagement happens along ethnic lines.[32] In order to assess whether civil society engagement has a similar effect on inter-ethnic trust, we include a variable based on the survey respondents' answer to whether they participate in voluntary associations, social clubs, or any other type of community engagement. We expect a positive correlation.

Several psychological or attitudinal factors may also influence inter-ethnic trust. According to social psychology research on social identity, people tend to favor their own

---

images of the Beslan school hostage crisis of September 2004 as a personal experience. This was an incident in which more than 1,000 people, the majority of them children, at School Number One in Beslan, North Ossetia, were held hostage by Chechen rebels. About 330 were killed, including more than 180 children.

[30] Robert Putnam, Robert Leonardi and Raffaella Nanetti, *Making Democracy Work: Civic Traditions in Modern Italy* (Princeton: Princeton University Press, 1993).

[31] Cook, Hardin and Levi, *Co-operation Without Trust?* p.2.

[32] Ashutosh Varshney, 'Ethnic Conflict and Civil Society: India and Beyond', *World Politics* 53 (2001), 362-98.

identity group, even when the group label in itself may carry very little meaning. In general, people seek to see themselves in a positive light, and they achieve that by comparing their identity group (the in-group) to other relevant groups (the out-group(s)). In experimental settings, researchers have shown that even when individuals are randomly assigned to a group with no substantive meaning, they tend to favor their own group. The implication is that conflicts can arise out of inter-group relations even where there are no apparent material conflicts of interest.[33] Perhaps the most well-known argument in this tradition is that of Donald Horowitz, who argues that the initiators of violence in ethnic conflicts are most often backward groups that are driven by both fear and a wish to boost their self-esteem and, thus, seek to catch up with the more developed groups.[34] Scholars have made similar arguments about trust—people tend to trust their in-group but not their out-group.[35] In order to capture this argument, we include a measure for whether an individual expresses pride in his or her ethnic group: It is reasonable to expect that individuals who express great pride in their own ethnic group (the in-group) are less likely to trust members of the out-group than individuals who are less proud of their own group.

In the same vein, a central hypothesis of social identity theory is the contact hypothesis, which suggests that inter-group peace and harmony is the result of contact between different groups. Contact creates knowledge and, thus, more favorable attitudes to members of the out-group. Practical conflict research has picked up on this argument and, for example, sought to bring together Protestant and Catholic grass-root leaders in Northern Ireland as a means to promote peace.[36] Based on the logic of this hypothesis, we would expect

[33] See, among others, Miles Hewstone and Katy Greenland, 'Intergroup Conflict', *International Journal of Psychology,* 35 (2000), 136-44; Rupert Brown, 'Social Identity Theory: Past Achievements, Current Problems, and Future Challenges', *European Journal of Social Psychology* 30 (2000), 745-78.

[34] Donald Horowitz, *Ethnic Groups in Conflict* (Berkeley: University of California Press, 1985).

[35] Alesina and Ferrara, 'Who Trusts Others?'

[36] Karen Trew, 'Catholic-Protestant Contact in Northern Ireland,' in Miles Hewstone and Rupert Brown, eds, *Contact and Conflict in Intergroup Encounters* (Oxford: Blackwell, 1986), pp. 93-106.

that individuals who have close friends among members of ethnic groups different from their own are more likely to trust members of different ethnic groups, and we include a variable based on a question about the nationality of the respondent's closest friends.[37] Similarly, Alberto Alesina and Eliana La Ferrara find that in the Unites States, individuals who are averse to racial mixing are less likely to trust others than those who are not.[38] In particular, they find that people averse to racial mixing are even less likely to trust others when they live in racially heterogeneous communities. Thus in the ethnically heterogeneous Bosnia and North Caucasus, we would expect that if a person expresses that she would like to have more friends among people of different nationalities, she would be more likely to trust people of different nationalities than someone who wants to have a more ethnically homogenous group of friends.

We further expect that individuals who have a positive outlook on the state of ethnic relations and the current situation to be more likely to believe in inter-ethnic trust. Previous research has demonstrated that feelings of safety are likely to have a positive impact on an individual's ability to trust others.[39] One of the survey questions asked the respondents to assess the degree to which ethnic relations are getting better or worse, and we include this as an independent variable in our analysis. We also include a variable based on the respondents' assessment of the current situation around them. If the respondent's answer is that it is 'impossible to tolerate', we would expect him to have a hard time trusting others, while we take the response 'not so bad' to imply feelings of safety, which are likely to promote trust. This question is a standard question in Russian national surveys, typically included to measure the overall state of affairs. In general this question may primarily be driven by

[37] We should note, however, that it is not entirely clear what the causal direction is: It could be that a person who trusts members of other ethnic groups is more likely to have members of those groups as friends.

[38] Alesina and Ferrara, 'Who Trusts Others?'

[39] Widner, 'Building Effective Trust in the Aftermath of Severe Conflict'.

material and economic circumstances, but in the North Caucasus it may entail a mix of material and conflict circumstances. As a result care is required in its cross-cultural interpretation.

We include measures for the respondents' material status, level of education, age, and gender. Material status is widely hypothesized to be positively correlated with interpersonal trust; a wealthy individual may have fewer financial worries and, as such, feel more secure than a poor individual, and it is reasonable to expect such a sense of security to engender trust.[40] In terms of education, based on the logic of the contact hypothesis, we would expect better educated people to be more exposed to people of different ethnic groups (either through personal contact or by reading more widely), which would be positively correlated with inter-ethnic trust.[41] As for age, given that older generations in both Bosnia and the North Caucasus lived through the communist period where ethnic tensions and violent conflict were rare (although under a under a very repressive state apparatus), we would expect them to be more inclined to believe in inter-ethnic trust than younger generations who have grown up in a far

[40] John Brehm and Wendy Rahn, 'Individual-Level Evidence for the Causes and Consequences of Social Capital', *American Journal of Political Science* 41 (1997), 999-1023, p. 1009; Markus Freitag, 'Social Capital in (Dis)similar Democracies: The Development of Generalized Trust in Japan and Switzerland.' *Comparative Political Studies* 36 (2003), 936-66, p. 948.

[41] See Bahry, Kosolapov, Kozyreva and Wilson, 'Ethnicity and Trust: Evidence from Russia'. Similarly, education 'increases exposure to cosmopolitan culture, resulting in individuals who are more tolerant and less suspicious of difference'. See Brehm and Rahn, 'Individual-Level Evidence for the Causes and Consequences of Social Capital', p. 1009.

more conflictual time.[42] Finally, we anticipate that women and men will have different perceptions of the possibility of inter-ethnic trust.[43]

Data and Methods

The main data for this study consist of 4,000 responses to two large public opinion surveys conducted in the two regions in December 2005.[44] The North Caucasus is typically not included in Russian national surveys. By contrast, Bosnia has been the site of detailed examination of the political and economic effects of the 1992-1995 war and has been the focus of numerous surveys, such as those of the Southeast and Eastern Europe Social Survey

[42] More generally, in the American setting, a number of researchers have identified less trust in younger cohorts. . See Brehm and Rahn, 'Individual-Level Evidence for the Causes and Consequences of Social Capital', p. 1009.

[43] Freitag, 'Social Capital in (Dis)similar Democracies: The Development of Generalized Trust in Japan and Switzerland'. According to social dominance theory, men are more likely than women to exhibit strong in-group favoritism (and to anti-egalitarianism, ethnocentric, and racist). See, for example, Jim Sidanius, Felicia Pratto and Michael Mitchell, 'In-group Identification, Social Dominance Orientation, and Differential Intergroup Social Allocation', *The Journal of Social Psychology* 134 (April 1994), 151-68.

[44] It is part of a larger study that also includes census data and aggregate geographic data for *rayoni* in Russia and *opstini* in Bosnia (the Russian *rayoni* are equivalent to counties in the United States: Each of the 89 federal regions—they be republics, *okrugs, krais,* or *oblasts*—are divided into *rayoni,* i.e. the *rayoni* are the third administrative level in Russia. In Bosnia, the *opstini* are the fourth and third administrative level): In Bosnia, the *opstini* are the fourth and third administrative level: Bosnia consist of the Federation of Bosnia and Herzegovina and Republika Srpska. The Federation of Bosnia and Herzegovina is divided into ten cantons (with their own government), which, in turn, are divided into *opstini* (municipalities). Republika Srpska is more centralized than its counterpart and does not have the canton-level; hence there the *opstini* are the third tier of government.

Project at the Norwegian University of Science and Technology,[45] and international agency data collection, for example the quarterly UNDP report on the country.

The surveys include representative numbers of all the major nationalities in each region,[46] and the goal is to measure and document the nature of attitudes and preferences towards the contemporary situation, social networks, socio-demographic and national characteristics, and the nature of cross-national relations in the light of experiences of conflict and continued unsettled political environment of the regions.

Based on a geographic design that includes all types of districts in the two study regions, we chose 4,000 individuals to participate in the survey questionnaire.[47] We could not completely cover all the 115 *rayoni* and cities of Stavropol' and the four ethnic republics of the North Caucasus included in our survey and the 109 *opstini* of Bosnia. As such, we had to be selective in the choice of study sites to make sure we had enough respondents in each community, as well as ensure that we were sampling correctly for differences in the sizes of nationalities. King, Keohane, and Verba caution against selection of cases on the basis of the dependent variable; such an error would be selection of the most conflictual and war-affected

[45] Available at http://www.svt.ntnu.no/iss/ringdalweb/SEESSP\per cent20Surveys.html.

[46] Although we cannot be completely certain of its representative character because of migration and temporary residences, comparison to the Census 2002 data suggest that the ratios for each major group in our survey are appropriate, recognizing that Chechens in Chechnya and in refugee camps in Ingushetia were not sampled In Bosnia, the last population census carried out before the war, in 1991. While population estimates are available, enormous dislocations, ethnic cleansing, internal migration and emigration have made these numbers problematic.

[47] Moreover, to organize our data collection and to overlay and integrate the spatial coverage for the different types of data, we developed a Geographic Information System (GIS) to efficiently display the information collected

locales to study postwar outcomes.[48] Following the best practice of case selection, we selected observations to ensure variation in the explanatory variables that guide the larger project,[49] such as the mix of nationalities, population change, environmental character as measured by land use and land cover, relative economic standing, urban and rural regions, and range of conflict experiences.

The survey process included the following two steps: (1) Stratification of the sub-areas of the study sites for selection of survey sites, and (2) survey of populations using a random procedure. We stratified the districts of the study areas according to the total of 26 variables using the approach employed by Taub, Taylor, and Dunham in their analysis of crime, race and neighborhood change in Chicago.[50] The data that we employed in the stratification of the republics' *rayoni*/cities originate from several sources and constitute four aggregate measures: ethnic diversity, material well-being, electoral measures, and environmental conditions (population density and urban-rural status). The sources and types of data include aggregate socio-economic information from the Russian October 2002 census as well as changes since the previous 1989 Soviet census. This constitutes the most consistent, albeit partial, picture of changing social and economic circumstances among the regions' nationalities and their material status. [51] We employed data on ethnic population

[48] Gary King, Robert O. Keohane and Sidney Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research* (Princeton: Princeton University Press, 1994). Also See Barbara Geddes, 'How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics', in James A. Stimson, ed, *Political Analysis*, Vol. 2 (Ann Arbor: The University of Michigan Press, 1990), pp. 131–50, for a similar argument.

[49] Douglas Dion, 'Evidence and Inference in the Comparative Case Study', *Comparative Politics* 30 (1998), 127-45.

[50] Richard P. Taub, D. Garth Taylor and John Dunham, *Paths of Neighborhood Change: Race and Crime in Urban America* (Chicago: University of Chicago Press, 1984).

[51] We used a grouping algorithm (Ward's hierarchical method) in order to cluster types of *rayoni*/cities and *opstini* in terms of the socio-demographic indicators. At each stage of clustering, an error term was

composition, population change since 1989, occupation, agricultural ratio, industrial ratio, doctors per capita, birth and death rates, infant mortality, average salaries, phones per capita, crime rate, and pupils in school as a ratio of the population. The Bosnia census data had to come from the 1991 Yugoslav census updated by numbers on refugee returns from the United Nations High Commissioner for Refugees (UNHCR). Data on land use and land abandonment in Bosnia were taken from Corine Land Cover, which is a digital map of land use in Europe based on satellite remote sensing images (from Landsat 30 meter imagery), and data on housing damage and destruction from the Office of High Representative (OHR).[52] In terms of electoral data, data on Russian parliamentary election results in 2003 and 2004 included the vote percentages for the major national parties and for the presidential candidates and are from official statistics. For Bosnia, there have been numerous elections and we used the data from the 2000 Parliamentary contest for our classification purposes. Because the major parties are so strongly aligned with ethnicities, these data provided a useful surrogate for population distributions.

A non place-based, random sample of the republic's population, which is the norm in sociological studies of attitudes, would not adequately test the degree to which levels of postwar adjustment vary with respect to place of residence, conditional on national group membership, material well-being, or political attitudes. Therefore, a survey questionnaire was administered to a random sample of adults over the age of 18 (the voting-age population) in

---

generated and we picked the six-cluster solution as the best compromise between gross aggregation and cluster complexity. For each of the clusters, districts were sampled randomly except that the main cities were also included in the sample *rayoni*. By strategically sampling a wide variety of counties and cities, we created a representative sample of districts. On this basis, we are able to correlate the nature of postwar conditions, national attitudes and ethnic interactions with the explanatory social-demographic variables and thus determine if contextual and (personal) compositional factors are significant with respect to the variation.

[52] These data are aggregated to the *opstina* level and used to supplement the (dated) census material from 1991.

each of the 35 sampled *rayoni*/cities in the North Caucasus. The distribution was roughly proportionate to the number of adults in each republic/*krai* and was composed as follows: Dagestan 625, Kabardino-Balkaria 246, Karachay-Cherkessia 121, North Ossetia 198, and Stavropol' 810 for a total of 2,000 persons. In Bosnia-Herzegovina, the sample was distributed proportionately to the population in the 35 *opstini* selected through the stratification process.

The surveys were administered by the Levada Center of Moscow and by Prism Research of Sarajevo. In the North Caucasus, the surveys were conducted in Russian by teams from Krasnodar, Moscow, and Stavropol', and in Bosnia in Bosnian, Serbian or Croat in the respective regions by local interviewers of the same ethnicity.[53] The average length of a survey interview was 45 minutes.

The maps in Figure 1 illustrate which localities were sampled along with an indication of the degree of inter-ethnic trust in each survey locale.[54] The question asked the

[53] Because our ethnic minority respondents in the North Caucasus were not interviewed by same-nationality surveyors, there is a possibility that they would be giving more "polite" about trusting members of other ethnic groups than the respondents who were interviewed by same-nationality surveyors. We examined the 135 interviewers in the North Caucasus region for any evidence of systematicly higher or lower scores, but could find no evidence of any interviewer effects.

[54] In terms of sampling technique, in the North Caucasus, from one to 13 primary sampling units (PSUs) was selected in each stratum, depending on the number of respondents falling in each cluster. The number of questionnaires falling in one stratum was then divided equally between selected PSUs. A total of 82 self-representative objects and PSUs were included in the sample. At the second stage of sampling, supervisors selected secondary sampling units (SSUs), which were streets in urban settlements and villages/counties in rural districts, yielding a total of 200. Selection of households in each SSU was carried out by means of a random route method (each 17th household in blocks with many-floors buildings; each 5th household in blocks with individual houses). If the household or respondent refused to take part in the survey or was not reached after three visits, the interviewer went to the next address. A total of 4,451 contacts were made for the completed 2,000 interviews or a gross

respondents whether they agreed or disagreed with the following statement: 'It is possible to trust people only of my nationality.' On a 1 to 5 scale, the answer categories ranged form 'strongly agree" (1) to 'strongly disagree' (5), where the latter indicates a high score on inter-ethnic trust. The blue dots show sampling regions where a large share of the respondents are prone to trust members of other ethnic groups, while red dots signify that a large share of the respondents are inclined to trust only people of ethnic background similar to their own. As the maps illustrate, inter-ethnic distrust is dispersed widely across all ethnic areas of Bosnia, with an urban-rural character (urban areas more trusting) whereas in the North Caucasus, the areas where are respondents are less inclined to trust members of other ethnic groups are in Russian-dominated Stavropol' *krai.* Note that the geographic distribution in Bosnia is neither related to ethnic regions (it is the same everywhere), urban-rural sampling points, or to intensity of war at that point. By contrast, in the North Caucasus, the highest values of trust are seen in the non-Russian region, Stavropol', and within that region, there is a distinct urban-rural difference (more inter-ethnic trust in urban areas). In general, the surveys reveal that there is a higher level of inter-ethnic trust in the North Caucasus than in Bosnia, where the largest response category is 'neither agree nor disagree' (see Table A2 in the Appendix). We will return to this when discussing the dependent variable below.

--- Figure 1 about here---

Our average respondent is a middle-aged (44 year old) woman. Of all of our 4,000 respondents, 2,242 are women and 1,758 are men. This is largely a result of the gender distribution in these regions, where men are in a minority due to out-migration for work (particularly in the North Caucasus) and casualties of war (particularly in Bosnia). At the same time, we must also keep in mind that there is a significant difference in life expectancies for men and women (in Russia, the life expectancy for men is 60 years, while it is 74 years for

---

response rate of 44.9 per cent. In Bosnia, a similar design was followed and a total of 2,234 contacts made for the 2,000 completed interviews, a response rate of 85.9 per cent.

women, while in Bosnia the respective numbers are 74 and 82). Figure 2 illustrates the age distribution of respondents in Bosnia and the North Caucasus.

As for socio-economic status, the average respondent has finished secondary or technical high school and, when asked about assessing her family's material status on a 1-4 scale 'we can purchase all we need', 'we can purchase all we need except for durable goods,' 'we have money for food only', to 'we do not have enough money for food', responded that 'we have money for food only' (41 percent). The second most frequent response was 'we can purchase all we need except for durable goods' (34 percent). The bottom line is that a large share of the population is struggling to survive or have little disposable income.

In the North Caucasus survey, the largest ethnic groups represented are Russians (871), Avars, which is the largest group in Dagestan (179), Dargins, which comprises the second largest group in Dagestan (137), Kabardins (139), and Ossetians (130). In Bosnia, the largest ethnic groups represented are Muslim Bosniacs (879), Serbs (717), and Croats (316), while there are relatively few who identify themselves as Bosnian (58), which implies a civic identity as a citizen of Bosnia and a rejection of ethnic labels, or of mixed origins (9). These are shown in Figure 2.

---Figure 2 about here---

In a related vein, respondents were also asked about the current state of affairs. Figure 3 illustrates the difference among aggregate opinions about the current situation: Respondents in Bosnia are somewhat more pessimistic about their current (material) situation than are inhabitants of the North Caucasus.

---Figure 3 about here---

Respondents were also asked a number of questions about ethnic relations and the current state of affairs, such as the extent to which they feel proud to be a member of their national group, the nationality of their closest friends, whether they would like to have more friends among national groups, and whether they considered ethnic relations to be improving or not. Figure 4 illustrates the degree to which the respondents have friends from multiple ethnic backgrounds. Almost half of both samples have friends from other ethnic groups.

---Figure 4 about here---

The study's main hypothesis concerns the experience of violence on interethnic trust. While about a quarter of the respondents in both Bosnia (509) and the North Caucasus (491) reported that neither they nor their closest family members have witnessed a violent nationalist incident have had that kind of experience, but a much larger ratio either answered 'I don't know' or refused to answer than was the case for other questions.[55]

Our dependent variable, inter-ethnic trust, is based on whether the respondents agree or disagree with the following question: 'It is possible to trust only members of my nationality.' In Figure 5, it is clear that in the aggregate, the respondents from the North Caucasus are more likely to trust members of other ethnic groups when compared with the respondents from Bosnia.

---Figure 5 about here---

A typical estimation technique when the dependent variable is an ordinal variable like ours is ordered probit or logit. Because we want to measure and correct for survey response incomparability by using an anchoring vignette, we use an estimation technique called chopit (short for compound hierarchical ordered probit), which allows us to incorporate anchoring vignettes.[56]

---

[55] The vast majority of Ossetians report that they have witnessed violence. This may be an effect of the Beslan school hostage crisis occurring so close to the sites of survey administration in North Ossetia, but it may also be a result of one of the North Ossetian towns being a sampling point. As the ratio does not vary much within North Ossetia, our inclination is that most Ossetians felt they were part of the target of the terrorists, who were Ingush and Chechen, and the event and loss of life was overwhelming in a small, poor, isolated, ethnically cohesive (strong in-group identity) place.

[56] To run Chopit with Stata, see Rabe-Hesketh and Skrondal 'Estimating Chopit Models in `gllamm`: Political Efficacy Example from King et al (2002)'. Available at http://www.gllamm.org/chopit.pdf. For chopit in R, see Jonathan Wand and Gary King, 'Anchors: Software for Anchoring Vignette Data', *Political Analysis* (forthcoming). Our experience is that, uncharacteristically, the R-procedure is many orders of magnitude faster.

Anchoring vignettes allow one to measure how much of a difference there is among respondents' understanding of a survey question. Because the respondents in any given survey have different backgrounds—different cultures, countries, ethnic groups, classes, and so on—they may understand the same question in very different ways. Take as an example the following scenario: It is 1975 and you are an Italian citizen. You are asked how often you participate in a major political protest—'very often', 'often', 'from time to time', 'rarely', 'hardly ever'. In the last year, you have participated in two political protests, and you answer 'hardly ever' to the question. The same question is asked of a Russian citizen in 1975. She has also participated in two protests in the last year, but her answer is 'often'. We know that in the 1970s, political protests in Italy took place quite frequently, while such events were few and far between in communist Russia, so it makes sense to us that the Italian and the Russian would judge their frequency of protest participation differently—they have different standards. The problem is, however, how can we measure such response incomparability? The solution proposed by King, Murron, Salomon, and Tandon is to use anchoring vignettes, which typically are short descriptions of hypothetical people and situations.[57] The survey respondents are asked to assess these hypothetical situations on a scale similar to the one on which they are asked to assess themselves. If we stick to the example above, the self-assessment question is about the respondents' own political protest activity. The anchoring vignette could describe a hypothetical persons' political participation ('Alice goes to political meetings once a month'), and the respondents would then be asked to assess whether this is 'very often', 'often', 'from time to time', 'rarely', or 'hardly ever'. Because the level of participation of Alice in the vignette is set, the variation in the respondents' assessment of Alice's political participation is due to interpersonal incomparability. Knowing the size of this incomparability allows us to correct for it when analyzing the self-assessment question in the

[57] King, Murray, Salomon Tandon, 'Enhancing the Validity and Cross-Cultural Comparability of Measurement in Survey Research'.

statistical analysis. This approach has been used successfully in World Health Organization (WHO) surveys of health status across the globe.[58]

In our study, the self-assessment question in which we are interested asks the respondents if they think inter-ethnic trust is a possibility, and the answer alternatives range from 'strongly agree' to 'strongly disagree'. But what if strongly agreeing with this statement means something else for a Chechen than for a Bosniac? In order to measure the agree-disagree scale that each of the respondents operates with when it comes to interpersonal trust, they were asked to assess the following hypothetical situation:

> Now, we shall tell you a short story and ask you a question about it. [Vladimir] has a very sick mother. She cannot be left alone for a minute. His wife is having a baby, goes into labor and needs to go to a hospital immediately. A neighbour, whom [Vladimir] has only recently met, offers to bring his wife to the hospital in his car. Can [Vladimir] agree?[59]

---

[58] See the *2002 World Health Survey*, World Health Organization, Geneva. Available at www.who.int/healthinfo/survey/en/.

[59] In the original surveys, the answer categories to this vignette are as follows: 'yes, of course' (1), 'yes, only because there is no other possibility (2), 'no, it is a bad idea' (3), 'absolutely not' (4), as well as 'don' t know/difficult to say' (8 in the Bosnian survey and 9 in the Russian survey) and, in the Bosnian survey, a category for 'refusing to answer' (9). In order to make these response categories match the ones in our self-assessment question, we decided to recode the 'don't know/difficult to say' category to the middle category 3, which in the self assessment question is 'neither disagree nor disagree.' It is reasonable to expect that 'I don't know' and 'neither disagree nor disagree' carry the same meaning. In total, 216 respondents answered 'I don't know' in the vignette question. The 32 respondents who refused to answer the vignette questions in the Bosnian survey were left in category 9 (and, thus, excluded from the final analysis along with the other category 9 responses from the questions we used). Moreover, we switched the order of the answer options in the vignette question, so that the 'high' in the self-assessment question, i.e. high inter-ethnic trust, corresponds to 'high' on

We take the respondents' answer to this vignette into consideration to correct for response incomparability. As Figure 6 illustrates, our respondents in Bosnia and the North Caucasus appear to have relatively similar standards for assessing Vladimir's situation. In both regions, the respondents are inclined to trust Vladimir's pregnant wife in his neighbor's care, given the lack of viable alternatives.

---Figure 6 about here---

Statistical Results

We report the results of a conditional hierarchical Ordered Probit alongside the results from a Conditional Hierarchical Ordered Probit (Chopit) in Figure 7. The reader will note that the N is 3,282 in the Ordered Probit and 3268 in the Chopit, rather than 4,000, because we dropped all observations in which the respondents refused to answer any of the questions that are included in the analysis.[60] With respect to the statistical findings, as expected, the Chopit model permits a calibration of different thresholds in Bosnia and the North Caucasus.[61] The result of this calibration yields somewhat different results from the Ordered Probit coefficients. The main result is that respondents from Bosnia are more skeptical of inter-

---

inter-personal trust in the vignette question. That is, a respondents who answered "yes, of course [I would let my neighbor, whom I don't really know, take my pregnant wife to the hospital]" was coded as 'high' in the vignette question.

[60] Because the respondents chose not to answer or to answer 'I don't know' to these questions, we did not want to interpolate these missing observations in our dataset. We end up with more dropped observations in the Chopit as the vignette question, which is not used in the Ordered Probit, gives us additional refusals.

[61] A substantial number of cases were dropped due owing to missing data. We have examined the missing cases and find no reason to think that they would dramatically affect the results we did obtain. Multiple imputation approaches would allow us to estimate these data empirically, but considerably complicate the inferential problems in comparing responses across different national settings. As a result we chose not to impute the missing data, and rely on the observed data for our inferences.

ethnic trust, on average, than are those respondents in the North Caucasus regions. We return to this finding in discussing Figure 8 below.

We note first, however, that of the socio-economic variables included, only education appears to have a statistically significant effect: As expected, respondents with higher education are more likely to trust members of other ethnic groups than are respondents with less education. There are two causal explanations for this finding. One option is that people with higher education are more likely to be in contact with members of other ethnic groups—in their social lives or through their jobs, or simply by being more knowledgeable about other ethnic groups through books and newspapers—and, per the contact hypothesis of social identity theory, such contact is likely to reduce barriers between members of different ethnic groups. The second option is that people with higher education are better off in material standards, and, as noted above, previous research has linked material well-being to a higher propensity for inter-personal trust, although our indicator that most directly assesses the respondents' material status turns out to have no impact on inter-ethnic trust. Based on a related logic, as discussed in the theory section, research has linked feelings of (material) safety to higher inter-personal trust, and we find that those who assess their current situation as being worse than it was in the previous period also express doubts about the potential for inter-ethnic trust. Likewise, in our Ordered Probit analysis we find that individuals who judge the state of ethnic relations as getting worse are unlikely to express high levels of inter-ethnic trust, but when we correct for survey response incomparability in the Chopit analysis, the effect of this variable is gone.

Of the other attitudinal variables, as we would expect based on social identity theory, we find that individuals without a strong in-group attachment (high on the pride variable) are more likely to trust members of other ethnic groups (positive coefficient). Similarly, and consistent with social identity theory's contact hypothesis, we find that individuals who have friends of different ethnic backgrounds are likely to believe in inter-ethnic trust. In this vein, we also expected that if a person expresses that she would like to have more friends among people of different nationalities, she would be more likely to trust people of different

nationalities than someone who wants to have a more ethnically homogenous group of friends. In our Ordered Probit analysis, we find support for this hypothesis, but the effect does not hold up in the Chopit analysis.

We did not find any conclusive support for hypotheses concerning gender and age, nor do we find any evidence in support of the social capital argument that community organizations help build trust among people. Perhaps the most surprising finding, which holds up both in the Ordered Probit and Chopit analyses, is that personal experiences with ethnic violence—despite how widespread it is among our respondents (approximately 25 percent)—does not exhibit an independent effect on the level of optimism about inter-ethnic trust. This finding is possibly driven by the Bosnia respondents.

---Figure 7 about here---

We included indicator variables for eight national/ethnic, all with more than a 100 respondents—Russians, Avars, Ossetians, Dargins, and Kabardins in the North Caucasus, and Bosniacs, Serbs, and Croats in Bosnia. While these findings must be carefully considered, we find that Bosniacs, Croats, and Serbs, on average, are more dubious about the possibilities of inter-ethnic trust than most other groups. In our Ordered Probit analysis, Russians, too, are skeptical about trusting members of other ethnic groups, but once we correct for survey response incomparability, we find that of the major ethnic groups in the North Caucasus, the Dargins, Kabardins, and Ossetians are more likely to express inter-ethnic trust, while we cannot say anything conclusive about the Russian respondents. We turn to a closer examination of the different ethnic groups in Figure 8.

---Figure 8 about here---

Figure 8 illustrates the predicted latent variable distribution for estimated levels of inter-ethnic trust among the major ethnic groups in Bosnia and the North Caucasus after we have 'corrected' for survey response incomparability. Recall that by major ethnic groups, we refer to those groups for which we had more than 100 respondents. Positive numbers on the x-axis suggests that the respondents trust members of other ethnic groups, while negative numbers suggest that they are more inclined to trust only members of their own nationality.

The grey bar portrays the width of the 95 percent confidence interval on the simulated latent trust variable for each of these national/ethnic groups. For the most part these aggregate trust measures are roughly comparable, though it is clear that on average, the Ossetian, Kabardin, Dargin, and, especially, Avar respondents are more trusting of other, but not necessarily all, ethnicities than are the respondents in Bosnia, or, for that matter, than are the Russians. This is evident as there is more of the grey bar that is above the threshold for the highest level of trust in these groups, compared to others. The dark dots represent the location of each estimated threshold, *tau* (τ), for each group. These thresholds divide the underlying latent trust variable into the different, observed levels of trust. That is, the first black dot for each of the ethnic groups represents the threshold between answer categories 1 and 2, the second black dot represents that threshold between answer categories 2 and 3, and so on. In the first row, for example, it is clear that all four estimated *tau*s fall within the 95 percent intervals on the estimated latent trust variable. Thus, some Croat respondents will be estimated to fall in each of the five categories, ranging from the lowest level of trust to the highest. For the Ossetians, Kabardins, Dargin, and Avars, the threshold between the lowest and next lowest level of trust fall outside of the 95 percent bands, suggesting that none of the respondents in these groups will be estimated to have the lowest level of inter-ethnic trust. Moreover, each of the ethnic minority groups in the North Caucasus, i.e. non-Russians, have a large—sometimes predominant—number of respondents who will fall above the third threshold, indicating that the majority of the respondents in these groups have estimated levels of inter-ethnic trust in the top two categories.

Among the major ethnic groups examined in this study, Croats, Serbs and Bosniacs are less trusting of other ethnicities. Croats are more trusting than Serbs and Bosniacs if one is examining only the Bosnia situation, but in the comparative analysis, all three Bosnian groups are less trusting of other ethnics than the North Caucasus groups. Our inclination is that this difference rests with the different war experiences of the population in these two regions: While the conflict in Bosnia was an inter-ethnic war where each of the three ethnic groups struggled for survival, in the North Caucasus, massive violent conflict was restricted to

Chechnya in the mid to late-1990s, while Chechnya in recent years and the other regions in general have experienced occasional outbursts of violence, but no prolonged inter-ethnic war. The values for the Russian respondents are not surprising in light of the long-standing suspicion and tension between the ethnic majority and the Caucasian minorities in the southern region of Russia. This situation has been characterized by Russian out-migration from the ethnic republics in recent years and clear expressions of inter-ethnic hostility in *rayoni* (counties) with immigration of Caucasians from their traditional heartlands.[62]

In terms of our counter-intuitive finding that personal experiences with ethnic violence generates *higher* inter-ethnic trust, this is clearly something that merits further investigation. It is particularly noteworthy that the in the North Caucasus, the group most expected to be distrustful—the Ossetians at the site of the Beslan massacre—are among the most inter-ethnic trustful. Recent research by Pittinsky, Rosenthal, and Montoya suggests that scholars (and policy makers) often neglect that people might just have positive attitudes to other groups ('allophilia'), which in some ways are independent of negative inter-group attitudes, and that such positive attitudes are key to understanding inter-group behavior.[63] Based on this research, a possible explanation for our finding is that the experience of inter-ethnic violence may have a 'sobering' effect on individuals, making them realize that in the future, what it takes to avoid such conflicts is a positive attitude to members of other ethnic groups.

---

[62] Vitaliy S. Belozerov, *Russifikatsiya i derussifikatsiya: Ethnicheskaya karta Severnogo Kavkaza vchera i segodnya* [*Russification and Derussification : The Ethnic Map of the North Caucasus Yesterday and Today*] (Moscow: Haugs, 2005); and Vladimir A. Kolossov, Tamara A. Galkina, and Alekey D. Krindatch, 'Territorial'naya identichnost' i mezhetnicheskiye otnosheniya (Na primere vostochnykh rayonov Stavropol'skogo kraya) (Territorial Identity and Inter-ethnic Relations [The Case of Eastern Rayons of Stavropol' Kray])', *Polis (Political Studies)* 11 (2001), 61-78.

[63] Todd L. Pittinsky, Rosenthal, Seth A., and Montoya, R. Matthew, 'Moving Beyond Tolerance: Allophilia Theory and Measurement', paper resented to the Society for Personality and Social Psychology, January 2007.

Conclusion

Many insights from the literature on trust are borne out in our analysis of the surveys undertaken in Bosnia and the North Caucasus region of Russia. In particular, we find that respondents who do not express strong ethnic pride and with friends from a variety of ethnic backgrounds are more likely to trust members of other national groups. Furthermore, respondents who doubt that the current situation is improving are less likely to express trust in members of other ethnic groups. The only socio-economic factor that plays a role is education: As expected, the respondents with higher education are more likely to express trust in members of other national groups.

Contrary to our initial expectations, we find that experience with ethnic violence does not play an important role in determining prospects for inter-ethnic trust. This puzzling finding clearly merits further investigation. Respondents who are located in the sites of particularly nasty violence such as Budyonnovsk, Nal'chik, and Beslan in the North Caucasus—all scenes of major hostage standoffs with a large attendant loss of life—or Srebrenica, Sarajevo, Derventa, and Br'čko in Bosnia—where even more loss of life occurred—show levels of interethnic trust that is not evidently related to the scale of violence.

Most importantly, however, we were able to compare experiences and perceptions across two different contexts. It is clear from the analyses, however, that we are studying two somewhat different situations: The legacy of distrust and suspicion among the Bosnian respondents remains strong, but the state of inter-ethnic relations in the North Caucasus is not (yet) so bad. Part of the reason is probably that the war in the Caucasus has not been as dramatic as in Bosnia, but is more geographically confined to Chechnya and its immediate borders. Unfortunately, we were unable to conduct surveys in Chechnya, surveys which might have shed further light on the state of inter-ethnic trust. Further, the war in Chechnya does not involve all groups but is more of a classic separatist rebellion of the state versus rebels, which might explain why we find many respondents skeptical of inter-ethnic trust in Russian-dominated Stavropol' *krai*. In contrast, the war in Bosnia was seen as a fight for survival by

all three major ethnic groups. While the Russians might be more skeptical because they are worried about the situation in Chechnya spreading to other regions, in Bosnia the spread was rapid and harder to ignore.

Our main finding is that the expected lack of inter-ethnic trust is simply not as evident, nor as predictable, as suggested in much of the scholarly literature. Conditional on the other factors included in our model, quite a bit of variation remains among different groups in the North Caucasus region. Moreover, even in Bosnia, where the overall level of trust is lower than in the areas surveyed in Russia, it is clear that inter-ethnic trust is not uniformly negative, as suggested by some.