June 2009

CULTURES, CLASHES AND PEACE

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Abstract

Ethnic and religious fractionalization have important effects on economic growth and development, but their role in internal violent conflicts has been found to be negligible and statistically insignificant. And mostly on this basis, differences of ethnic, religious and cultural identities as the ultimate determinants of violent conflict have often been refuted. Using data on 953 conflicts that took place in 52 countries in Europe, Africa and the Middle East between 1400 CE and 1900 CE, we investigate the impact of violent conflicts on ethno-religious fractionalization. Besides a variety of violent confrontations ranging from riots, revolts and power wars between secular sovereigns, the data cover religiously-motivated confrontations. We document that countries in which Muslim on Christian wars unfolded more frequently are significantly more religiously homogenous today. In contrast, those places where Protestant versus Catholic confrontations occurred or Jewish pogroms took place are more fractionalized, both ethnically and religiously. And the longer were the duration of all such conflicts and violence, the less fractionalized countries are now. These results reveal that the demographic structure of countries in Europe, the Middle East and North Africa still bear the traces of a multitude of ecclesiastical and cultural clashes that occurred throughout the course of history. They also suggest that endogeneity could render the relationship between fractionalization and the propensity of internal conflict statistically insignificant.

Keywords: Conflict, Religion, Institutions, Economic Development.
JEL Classification Numbers: C72, D74, N33, N43, O10.

We gratefully acknowledge Rachel McCleary's detailed comments and critique although, as usual, all errors and speculations are ours alone. We would also like to thank Alan Olmstead, Peter Lindert, Greg Clark, Chris Meissner and seminar participants at UC-Davis for useful suggestions. Please send all correspondence to Murat Iyigun, University of Colorado at Boulder, Department of Economics, Campus Box 256, Boulder, CO 80309-0256. E-mail: murat.iyigun@colorado.edu. Phone: (303) 492-6653. Fax: (303) 492-8622.

1. Introduction

Religious and ethnic fractionalization play a prominent role in the empirical growth and development literature and have been repeatedly shown to have a wide array of effects. In various studies, ethno-linguistic differences have been identified as having had detrimental effects on sociopolitical cohesion, thereby eroding the quality of institutions, the commensurate government policies and long-run economic growth.[1] Religious fractionalization, in contrast, often exerts a positive if not always statistically significant effect on economic growth, presumably because such fractionalization is an indicator of sociopolitical tolerance and religious freedoms.[2]

While the economic literature has identified that fractionalization has an indirect influence on economic growth, a host of papers has shown that the standard measures of ethnic or religious fractionalization have a quantitatively and statistically negligible impact on the propensity of violent conflicts within countries.[3] It is on this basis that economists and political scientists have often refuted the 'Huntington hypothesis' whereby differences of ethnic, religious and cultural identities are the ultimate determinants of conflict.[4]

The observed levels of fractionalization are clearly endogenous in the long run. Thus, the standard approach to estimating the impact of fractionalization on institutional quality and economic growth has involved maintaining time horizons that are long enough to isolate the impact of fractionalization on economic outcomes, but are also short enough that measures of fractionalization remain more or less constant. In practice, this strategy has yielded studies that cover two or three decades. Still, the extent to which ethnic, linguistic or religious fractionalization evolves and changes over time is subject to some debate, although there is more of a consensus that religious fractionalization is the most

[1] Easterly and Levine (1997), Alesina et al. (1999, 2003), La Porta et al. (1999) and Mauro (1995). For a salient theoretical treatment, see Caselli and Coleman (2006).

[2] For further details, see Alesina et al. (2003).

[3] Fearon and Laitin (2003), Collier and Hoeffler (2005, 2007), Miguel et al. (2004) and Ray (2005).

[4] Huntington (1996).

malleable and responsive to changes in the external environment.[5]

In this paper, we examine the long-run determinants of contemporary fractionalization across countries along the ethnic, linguistic and religious dimensions. We particularly focus on the impact of violent confrontations over the course of medieval and post-Industrial Revolution history on religious fractionalization. Covering 953 violent confrontations that took place in 52 countries in the Middle East, the Near East, Europe and North Africa over half a millennium between 1400 and 1900 CE, we document that the frequencies and types of conflict influenced contemporary levels of religious and to some extent ethnic and linguistic fractionalization too.

For example, we find that the frequency of Muslim on Christian wars within a country's borders is a statistically significant and positive predictor of its current levels of religious homogeneity; an additional incidence of violent conflict between Muslim and Christian players within the borders of a modern country would have been sufficient to lower its current level of religious fractionalization anywhere between 5 to 10 percent. In contrast, Protestant and Catholic confrontations within each country between the 15th and 19th centuries—and to some extent the incidence of Jewish pogroms too—helped produce more modern-day religious fractionalization, with an additional Catholic on Protestant confrontation accounting for more than 15 percent higher religious fractionalization. In addition, the longer was the duration of all such conflicts and violence, the less fractionalized are countries now.

These results are robust to the inclusion of various control variables such as geographic region dummies, distance to the equator and population. Indeed, we verify that distance from the equator is a predictor of ethnic and religious fractionalization, with equatorial distance reducing both. It is also the case that certain geographic regions that are currently more fractionalized religiously and ethnically than others—such

[5]See, for instance, Alesina et al. (2003). A dissenting view is provided by Campos and Kuzeyev (2007) who argue that ethnic fractionalization evolved more rapidly than linguistic and religious fractionalization in 26 former communist countries over the period between 1989 and 2002.

as the Balkans and Eastern Europe—also typically have been historical buffer zones in which religious conflicts between Muslims and Christians or Protestants and Catholics were fought with higher frequency as well as longer duration.

Our conclusions are also robust to incorporating a much longer time lag than one century between the measurements of fractionalization and conflict data. In fact, if anything, our results are strengthened using specifications with 502 observations on violent conflicts that occurred between 1400 to 1600 CE as the basis of our explanatory variables.

These findings are relevant for assessing the Huntington hypothesis because they demonstrate that the demographic structure of countries in Europe, the Middle East and North Africa still bear the traces of a multitude of 'ecclesiastical and cultural clashes' that occurred throughout history. More specifically, those geographies where clashes took place more often and with a longer duration between Muslim and Christian 'civilizations' are likely to be the areas that are more homogenous today. Whereas the areas with a more frequent history of conflicts within the Judeo-Christian or Muslim 'civilizations' are more likely to be more heterogenous and fractionalized now. Accordingly, modern-day fractionalization might simply be a manifestation of ethnic and religious groups that have painfully learned to coexist. In contrast, a fairly homogenized country is likely to be a geography where the reason for that homogeneity is a historically persistent source of conflict that produced attrition and out-migration. Either way, the likelihood of internal violence and conflict would be lower now, rendering the relationship between fractionalization and the propensity of conflict within countries statistically insignificant.

That ethnic, religious and linguistic cleavages within countries could be sources of violent conflict and internal strife is by now part and parcel of the ubiquitous *Huntington hypothesis*: "...conflicts occur between groups from different civilizations within a state and between groups which are... attempting to create new states out of the wreckage of the old." What is more obscure, however, is that Huntington himself was cognizant of

the attenuating effects of conflicts in the long run:

> "Many countries are divided in that the [ethnic, racial and religious] differences and conflicts among these groups play an important role in the politics of the country. The depth of this division usually varies over time. Deep divisions within a country can lead to massive violence or threaten the country's existence. This latter threat and movements for autonomy or separation are most likely to arise when cultural differences coincide with differences in geographic location. If culture and geography do not coincide, they may be made to coincide through either genocide or forced migration," Huntington (1993, p. 137, 208).

Given that the economics literature has long linked the institutional quality of countries and their sociopolitical as well as economic stability to various forms of fractionalization, a salient issue is whether conflicts and religious confrontations have a direct impact on institutions and political systems, or if the impact of violence and religious confrontations solely filters through fractionalization.[6] While our analysis confirms that ethnic and linguistic fractionalization has a detrimental impact on institutions and the quality of polities across countries, there indeed exists a direct and statistically significant impact of the history of violent conflicts—especially those of a religious nature—on institutions and polities.

The fact that fractionalization is shown to evolve over time and the empirical work below incorporates time lags of anywhere from one to four centuries between the conflict data and fractionalization ought to be sufficient to isolate the impact of the former on the latter. But in interpreting empirical work on the relationship between fractionalization and economic outcomes, the inclination is to explore the potential channels of adverse impact via the role of fractionalization in generating conflict. From this perspective, the

[6]For the role of social divisions and fractionalization on stability and institutions, see Alesina, Baqir and Easterly (1999), Easterly and Levine (1997), Knack and Keefer (1995).

direction of causality that we advocate here runs counter to such traditional approaches. Be that as it may, it is important to acknowledge that, if historical trends did exist over the very long periods we consider here, they were in the direction of generating higher fractionalization, not less. As we shall soon elaborate, given our main results—especially those involving the Muslim versus Christian confrontations—such a channel of reverse causality would produce an attenuation bias. This is on account of the fact the argument of reverse causality establishes a positive effect, which runs from higher fractionalization to more frequent conflicts and violence. But in a variety of cases—most notably, regarding the impact of Muslim-Christian confrontations—we find a negative impact of violent conflicts on fractionalization.[7]

Furthermore, as we shall document in Section 3, the historical evidence suggests that there were fundamental changes in religious and ethnic fractionalization during the 20th century in the geographies we study below, let alone the five centuries preceding it. In the Middle East, Europe, the Near East and parts of northern Africa, which are subject to our analysis, medieval history reveals that religious pluralism came mostly on the back of violent confrontations either due to international political and religious rivalries or as a result of domestic religious splinters.[8]

2. Some Related Literature

In addition to the literatures referenced above, the work below relates to four other strands. First, differences of religion have been documented as important instigators of violent conflict. As Richardson (1960) has shown, differences of Christianity and Islam, have been causes of wars and that, to a weaker extent, "Christianity incited war between its adherents." Similarly, Wilkinson (1980) has claimed that "the propensity of any two groups to fight increases as the differences between them (in language, religion, race, and

[7]Direct supporting evidence for the long term evolution of fractionalization is hard to come by. But for the medium term evolutions of ethnic, religious and linguistic fractionalization following the disintegration of authoritarian socialist regimes, see Campos and Kuzeyev (2007).

[8]Iyigun (2008a, b).

cultural style) increase." And the more recent political science literature has supplied the view that religion and ethnicity are two fundamental components of 'culture capital', the differences in which that can produce wholesale 'clash of civilizations'.[9]

The corollary of such findings were articulated earlier by the likes of Montesquieu, Kant and Angell. Their 'liberal peace' view emphasized that "mutual economic interdependence could be a conduit of peace." Along these lines, Jha (2008) finds some evidence of the view that differences in the degree to which Hindus and Muslims could provide complementary, non-replicable services in the medieval maritime ports of India explain the extent to which religious tolerance could be sustained over the long term. In particular, he shows that medieval trading ports were 25 percent less likely to experience a religious riot between 1850-1950, two centuries after Europeans eliminated Muslim advantages in trade. In a similar vein, Clingingsmith et al. (forthcoming) document that the Muslim pilgrimage of *Hajj* increases observance of global Islamic practices while decreasing antipathy toward non-Muslims. Their evidence suggests that such changes are due to the interactions among Hajjis from around the world during the Holy Pilgrimage.

Second, we have the political economy literature that incorporates conflict and appropriation into models of production. Haavelmo (1954) was the first to promote the notion that appropriation and violent conflict over the ownership for resources should be modeled as an alternative to economic production. Later contributions, such as Hirshleifer (1991), Grossman (1994), Grossman and Kim (1995), Grossman and Iyigun (1995, 1997), Skaperdas (1992, 2005), Alesina and Spolaore (2007) and Hafer (2006), built on Haavelmo's original ideas. The work below sits at the junction of these two strands since it is based on the premise that religious, ethnic or cultural differences could be driven by conflict and war.

There is also an active related strand in the economics of religion. Some papers in this line focus on the supply side, emphasizing how religious norms and denominations

[9]The culture capital view of religion has been advocated by, among others, Huntington (1996), Landes (1998), Ingelhart and Baker (2000).

evolve (e.g., Barro and McCleary, 2005, Berman, 2000, Ekelund et al., 1996, Ekelund et al., 2002, Iannaccone, 1992). Other papers, in contrast, discuss the demand side (Glaeser and Sacerdote, 2003, Inglehart and Baker, 2000).

Finally another cluster of work on the economics of religion explores how adherence to different faiths, such as Judaism, Islam or different denominations of Christianity, might have influenced individual behavior and the evolution of sociopolitical institutions (e.g., Greif, 1993, 1994, 2006, Kuran, 2004a, 2005, Becker and Woessmann, 2009, Botticini and Eckstein, 2005, 2007, Glaeser, 2005, Lewis, 2002, Guiso et al., 2003, 2006, Abramitzky, 2008 and Iyigun, 2007, 2008a, 2008b). More generally, this strand falls within the rubric of the economics of culture which advocates the importance of cultural differences in various economic outcomes (Landes, 1998, Temin, 1997, Fernandez et al., 2004, Fernandez, 2007). The work below relates to this strand because it examines the longer-term demographic ramifications of conflicts related to or driven by religious motives.

The remainder of this paper is organized as follows: In Section 3, we review the historical background. In Section 4, we present our baseline findings. In Section 5, we discuss issues of endogeneity as well as robustness, and present some alternative specifications. In Section 6, we conclude.

3. Historical Background

Our measures of religious and ethnic fractionalization do not extend back in time for us to control for the dynamics of fractionalization historically. However, there is somewhat of a consensus that religious fractionalization is more responsive to the external environment than either ethnic or linguistic fractionalization.[10] In any case, we shall now provide some evidence that the geographic areas in the current domain of the 52 countries in our study were most likely to have been uniformly homogenous throughout the 16th century—if not until much later—than they are today.

[10] Alesina et al. (2003).

To start with, consider Europe, the Middle East and North Africa at the turn of the 15th century. At the time, Christianity had been split for close to three and a half centuries along its eastern Orthodox and Roman Catholic denominations. And the Nestorian as well as the Coptic Churches had already split from Rome close to a millennium prior to 1400 CE. However, there was little if any geographic overlap in the domain of each of these Christian denominations at the turn of the 15th century. Moreover, while the precedents for the Protestant Reformation had been set in western, northern and central Europe with the Cathar/Albigensian uprisings in 1177 CE as well as the Waldensian movement in the same year, Europe west of the Balkan peninsula was a homogenous ecclesiastical block within the domain—and under the monopoly—of the Roman Catholic Church. (see Moore, 1994, and Rhodes, 2005). In England, it was not until 1534 that fractionalization began in earnest with the Church of England separating from the Roman Catholic Church during the reign of Henry VIII.[11]

In the east, the Ottoman empire had made significant territorial gains in the late 14th century, yielding the geographic areas within what is now Bulgaria, Romania and most of eastern Greece to Ottoman control. The Ottomans followed the traditional Islamic policy of religious tolerance toward the other 'people of the book'. Jews, Christians and other believers of the one true God had the right of protection of their lives, properties and religious freedoms provided that they accepted Ottoman rule and paid the special head tax, *cizye*. Hence, there is not much on record to suggest that a large number of Balkan Christians converted to Islam, with only some small minority groups, such as the Bogomils of Bosnia, who had been persecuted under Christian rule, having chosen to do so (Shaw, 1976, p. 19). Nor was there any significant amount of resettlement by the Ottoman Muslims within the newly-acquired eastern European territories. While the Balkans are currently one of the most religiously fractionalized geographic regions covered in our study, there is much to suggest that this fractionalization was

[11]MacCulloch (2003, pp. 193, 194).

fairly low and bounded by our contemporary standards throughout the 16th and the 17th centuries.[12]

At the turn of the 16th century, the Iberian peninsula was a most homogenous Catholic region. Of course, that was on account of the Spanish Inquisition, under which Monarchs Isabella I of Castile and Ferdinand II of Aragon had begun in 1478 to purge the Iberian peninsula of all religions and Christian denominations except Roman Catholicism. While the inquisition did not officially end until 1834 when Isabel II abolished it, the Muslims and Jews of the peninsula as well as its Christians of rival denominations had relocated out of the peninsula entirely by the early 16th century.[13]

One also needs to bear in mind that fractionalization data are driven, to some significant extent, by the political regimes in effect. In more repressive regimes, the measured fractionalization rates are more likely to be biased downward.[14] Hence, the fact that the time period and geographic areas we investigate were unambiguously much less democratic and typically much more repressive prior to 1900 and most certainly before 1600 also suggests more homogeneity back in time.

4. The Empirical Analysis

4.1. Data and Descriptive Statistics

Our primary data source is the *Conflict Catalog* by Brecke (1999). It is a comprehensive dataset on violent conflicts in all regions of the world between 1400 CE and the present. It contains a listing of all recorded *violent* conflicts with a Richardson's magnitude 1.5 or higher that occurred on five continents.[15] These data are still under construction, but

[12] Along these lines, there is some consensus that the Ottomans' deliberate policies of low taxes and religious toleration generally helped to augment religious and ethnic diversity of the Balkans and eastern Europe (Kafadar, 1996, Shaw, 1976, and Karpat, 1974, Faroqhi, 2004, pp. 37 and 64).

It is well known that the Ottomans were directly involved in aiding the relocation of Huguenots from France to Moldavia, then an Ottoman territory. The Ottomans also indirectly supported the Serbian Orthodox immigrants againts the Hapsburgs in some Balkan protectorates.

[13] Landes (1998, p. 139).

[14] Alesina et al. (2003).

[15] Brecke uses the definition of violent conflicts supplied by Cioffi-Revilla (1996): *"An occurrence of purposive and lethal violence among 2+ social groups pursuing conflicting political goals that results in*

they are virtually complete for Europe, North Africa and the Near East. We rely on this portion.

For each conflict recorded in the catalog, the primary information covers (i) the number and identities of the parties involved in the conflict; (ii) the common name for the confrontation (if it exists); and (iii) the date of the conflict. On the basis of these data, there also exists derivative information on the duration of the conflict and the number of fatalities, but the latter are only available for less than a third of the sample.

We worked with two cuts of these data: one, which covered the five centuries between 1400 and 1900 CE, and another that spanned the two hundred years between 1400 and 1600 CE. The broader, half a millennium cut yielded a total of 953 conflicts, while the narrower dataset resulted in 502 observations. We then identified the geographic locations of each of these conflicts and assigned it to one of the 52 countries that exist today in Europe, the Middle East, the Near East or North Africa.[16] Then we augmented this information with the fractionalization data constructed by Alesina et al. (2003). For some other peripheral data, such as population measures, polity and democracy scores and city distance calculations, we relied on McEvedy and Jones (1978), the Polity IV Project and City Distance Tool by Geobytes.[17]

Our final step involved classifying conflicts by the actors involved. If a violent conflict pitted a predominantly Muslim society against a Christian one (i.e., the Ottomans versus the Hapsburgs at various occasions during the 16th and 17th centuries or the

fatalities, with at least one belligerent group organized under the command of authoritative leadership. The state does not have to be an actor. Data can include massacres of unarmed civilians or territorial conflicts between warlords."

Richardson's index corresponds to 32 or more deaths ($\log 32 = 1.5$) and the five continents covered are all those that are inhabitable (i.e., Europe, Asia, the Americas, Australia, and Africa).

[16]To be specific, we first identified the theater(s) of conflict for each of the observations in the Brecke dataset using multiple sources, including, but not limited to *Oxford Atlas of World History* (2002), the *Rand McNally Historical Atlas of the World* (2005), the *Encyclopedia Britannica,* Levy (1983) and Shaw (1976). Then, we identified the longitude and latitude of each of the battle or conflict locations. We used that information to tally the different kinds of conflicts and violent confrontations that occurred between 1400 and 1900 CE within the borders of the 52 countries in our sample.

[17]The Polity IV data can be accessed at http://www.systemicpeace.org/polity/polity4.htm and the city distance calculator can be found at http://www.geobytes.com/CityDistanceTool.htm.

Russo-Circassian wars between 1832 and 1864), we labeled that conflict as one involving Muslims against Christians; if it involved coreligionist groups (such as the Napoleonic wars in Europe or Russia in the 19th century or the Ottomans against the Safavids or Memluks in the 16th century), then we classified it as Christian versus Christian or Muslim versus Muslim. And for those conflicts which explicitly had a religious dimension (such as the various Protestant or Huguenot revolts against the Catholic establishment in Europe during the 14th, 15th or 16th centuries and various Jewish pogroms that occurred in Europe dating back to the 11th century), we classified them as Catholic-Protestant confrontations or pogroms.[18]

Table 1 lists the key underlying data and Table 2 presents some descriptive statistics. As shown in the first table, countries that are most religiously fractionalized today include the Eastern European and Balkan countries, such as Bosnia & Herzegovina, Slovakia, Czech Republic, Hungary and Moldova. This is more or less the set of countries that lay in the buffer zone between Christianity and Islam, as defined by Huntington.[19] There are other highly fractionalized countries located in western and central Europe also, such as the Netherlands, Switzerland, Germany and the United Kingdom, as well as others in the Middle East, such as Jordan and Lebanon. By contrast, those countries that are religiously most homogenous typically have Muslim majorities, such as Algeria, Tunisia, Turkey and Yemen.

[18]Of course, there are various other finer or broader classification criteria we could employ. For example, among the Muslim on Muslim conflicts, we could distinguish those confrontations that occurred between the Shi'a versus the Sunni. Or, within Christianity, we could identify those confrontations which pitted eastern Orthodox groups against Catholics. In fact, we did explore if these other conflict types mattered. But neither had significant effects in our estimates, so we chose not to include them in our main specifications below.

As well, broadening the scope of our conflict types even further remains an area of future investigation.

[19]Huntington (1996, p.159) provides an explicit map of the buffer between the 'Christian' and 'Muslim' civilizations. It is roughly defined by a North-South axis which splits the European continent from Asia, running "along what are now the borders between Finland and Russia and the Baltic states (Estonia, Latvia, Lithuania) and Russia, through western Belarus, through Ukraine separating the Uniate west from the Orthodox east, through Romania between Transylvania with its Catholic Hungarian population and the rest of the country, and through former Yugoslavia along the border separating Slovenia and Croatia from the other republics. In the Balkans, of course, this line coincides with the historical division between the Austria-Hungarian and Ottoman empires."

While there are *a priori* reasons to think that the interactions of people with different ethnic or religious backgrounds might have been more frequent in the buffer zones, they do not necessarily suggest the higher frequency of ethnic and religious interactions produced a positive or negative net impact on fractionalization. On the one hand, it could have been that minorities were either oppressed or forced to convert with more frequency by societies which subscribed to majority religions in the buffer zones, thereby leading to forced conversion to the monotheistic religion or to a syncretized form of religion (sects) that were marginally tolerated by the dominant faith. Such dynamics would have produced more religious homogeneity in the buffer zones. On the other hand, buffer zones could have been areas with more religious porousness, especially if the more intense nature of ecclesiastical competition in them enabled more proselytizing and voluntary conversions. In that case, religious diversity would have been higher. For these reasons, it is incumbent upon us to acknowledge—and, in what follows, explicitly control for—the special nature of the buffer zones in the dynamics of ethnic and religious fractionalization.

In terms of the patterns of warfare and conflict, we see that Austria, France, Germany, Italy, Poland, Russia, Spain and Turkey were the theaters of conflict most often. Adjusting for country size, some of those countries remain high on the list, although the incidence of violent conflicts in Germany, Russia and Turkey adjusted for their geographic size is relatively low. Of the 52 countries in the sample, predominantly eastern European and Balkan countries, such as Albania, Greece, Austria, Bulgaria, Turkey and Ukraine, saw the most Muslim on Christian conflicts. But in Spain and Russia too there were relatively more conflicts which pitted Muslim against Christian players. And in six of the countries in the sample, including France, Germany and Switzerland, there were violent confrontations between Protestants and Catholics. Although not shown, our data also cover four countries—Belarus, France, Portugal and Spain—where one or more pogroms took place between 1400 and 1900 CE. Figure 1 is replicated from Iyi-

gun, Nunn and Qian (in progress); it shows the conflicts in our dataset by century and geographic location.

[Table 1 and Figure 1 about here.]

Now some salient descriptive data statistics. First, note that countries are more religiously fractionalized than they are ethnically or linguistically. At the same time, there is also a higher level of cross-country variance in religious fractionalization. There were close to 18.3 conflicts within each country in the sample over the 500-year interval between 1400 and 1900 CE. Among these conflicts, there were on average 3.3 violent confrontations per country that involved Muslim and Christian sides, about .73 which pitted Catholics against Protestants and .096 of Jewish pogroms per country. Catholic on Protestant conflicts lasted much longer on average than those between Muslims and Christians which in turn lasted much longer than Jewish pogroms and other types of violent confrontations. Conditional on the fact that there was at least one such type of confrontation within country borders over the interval between 1400 and 1900 CE, a typical Protestant versus Catholic conflict lasted more than 3.5 years, whereas Muslim on Christian conflicts lasted roughly three years and Jewish pogroms on average did not last even half a year.

Using our longer timespan covering the period between 1400 and 1900 CE, the average year of conflicts was 1644, with Muslim on Christian wars occurring on average around the year 1626 and Jewish pogroms being dated around the year 1500 CE. By contrast, when we restrict the time coverage to the two-century interval between 1400 and 1600 CE, those dates are respectively revised as 1512, 1547 and 1451 CE.

There is a positive but relatively low level of correlation between religious fractionalization and the two other fractionalization measures, although that between religious and linguistic fractionalization is the higher of the two measures. By contrast, the correlation between ethnic and linguistic fractionalization is still positive but much higher. Religious fractionalization exhibits a negative and relatively low correlation with Chris-

tian on Muslim conflicts, but it shows a positive and modest correlation with Protestant and Catholic wars and a low positive correlation with Jewish pogroms. The correlation of religious fractionalization with the duration of different kinds of conflict varies too, with the correlation of religious fractionalization and the duration of Muslim versus Christian conflicts being the only one which is slightly negative. As shown in the second panel of Table 2, the geographic correlations of religious fractionalization confirm that the Balkans and Eastern Europe are highly fractionalized whereas the Middle East is not. In our final panel in Table 2, we document that religious fractionalization rises with distance from the equator and ethnic fractionalization falls with it, while linguistic fractionalization is barely related to equatorial distance.

[Table 2 about here.]

4.2. Main Results

In our baseline estimates, we cover the period between 1400 and 1900 CE to estimate the following regression:

$$\begin{aligned} FRAC_i \quad = \quad & \lambda_0 \; + \; \lambda_1 TOTALCONFLICTS \\ & \lambda_2 MUSLIMCHRISTIANWARS_i + \; \lambda_3 PROTESTANTCATHOLICWARS_i \\ & + \lambda_4 POGROM_i \; + \; \lambda_5 DURCONFLICTS_i \\ & + \lambda_6 DURMUSLIMCHRIST_i + \; \lambda_7 DURPROTESTCATH_i \\ & + \lambda_8 DURPOGROM_i + \; \lambda_9 X_i \; + \; \varepsilon_i, \end{aligned} \tag{1}$$

where $FRAC_i$ is one of three alternative dependent variables constructed by Alesina et al. (2003); $TOTALCONFLICTS_i$ is the total number of violent confrontations that occurred within country i's borders between 1400 CE and 1900 CE; $MUSLIMCHRISTI-ANWARS_i$ is the count of violent confrontations between Muslims and Christians which took place in country i over the relevant time span; $PROTESTANTCATHOLICWARS_i$ is the count of violent conflicts between Catholics and Protestants that occurred in country i between 1400 CE to 1900 CE; $POGROM_i$ is the number of Jewish pogroms which took place in country i during the same period; and $DURCONFLICTS_i$, $DURMUS-LIMCHRIST_i$, $DURPROTESTCATH_i$, $DURPOGROM_i$ denote the average duration of the types of conflict, respectively.[20]

In our most parsimonious empirical specifications, the set of control variables X_i includes nine geographic dummy variables, $WESTERNEU$, $CENTRALEU$, $EASTERN-EU$, $NORTHERNEU$, $BALKANS$, $AFRICA$, $ASIA$, $MIDEAST$ and $ISLAND$. Note that, taken together, two of those geographic dummies, $EASTERNEU$ and $BAL-KANS$, define what turned out to be the historical buffer zone between Christian and Muslim societies. In other more comprehensive estimates, we also include in X_i the population level of i in 1994, $POPULATION$; the distance from the equator of country i's capital, $EQUATOR$; a dummy for whether or not i is landlocked, $LANDLOCK$; country i's land area in km^2, $LANDAREA$; the population estimates for 1000 CE and 1500 CE, $POP1000$ and $POP1500$, respectively; the distance of country i's capital from the three ecclesiastical centers of Rome, Jerusalem and Mecca, $ROME$, $JERUSALEM$, and $MECCA$; dummies for whether a majority of the population was Christian or Muslim in 1994, $CHRISTIANMAJOR$ and $MUSLIMAJOR$; and the years during which each of the four types of conflict took place on average, $YRCONFLICT$, $YRMUSLIMCHRIST$, $YRPROTESTCATH$ and $YRPOGROM$.

Table 3 displays results from four regressions that employ religious fractionalization

[20]For complete details of how the various fractionalization measures are defined and calculated, see Alesina et al. (2003).

as the dependent variable.[21] Column (1) shows results from the most parsimonious of regressions, with controls only for geographic region as part of X_i. As mentioned earlier, certain areas of Europe tend to be more homogeneous than others, hence the addition of geographic dummies controls for regional differences. Column (2) adds $LANDAREA$, which is reported, though not significant, a dummy for whether the country is landlocked, $LANDLOCK$, and current population, $POPULATION$, in case fractionalization is correlated with population size.[22] Column (2) also adds variables for distance to the equator and a dummy for whether a country is landlocked. Column (3) builds on the specification in (2) with the additional variables of distance to major religious centers of Mecca, Rome and Jerusalem, as well as a dummies for whether the country had a Muslim or Christian majority in 1994, and its population in the years 1000 and 1500 CE. Of these, only the religious majority coefficients are reported.[23] Column (4) adds variables associated with the average year of the conflict both in general and by the types of religious conflict, although they are not reported. All in all, these additional control variables are highly correlated with duration and do not appear to have a large effect on magnitude or significance of the variables in question.

In all four regressions in Table 3, religious fractionalization depends negatively and statistically significantly on the *frequency* of Muslim on Christian wars and typically positively—though not significantly—on wars between Protestants and Catholics. These results buoy the thesis that the long-run incidence and patterns of religious conflicts—in this case, those between Muslims and Christians—did impact the contemporaneous extent of religious fractionalization within countries. The role of historical conflicts in

[21] In all tables, we report the heteroskedasticity-corrected standard errors.

[22] It is important to control for country size to the extent that country formation is endogenous and causality runs from violent confrontations to country size, which in turn affects our measures of fractionalization. Put differently, to the extent that the impact of conflicts on fractionalization arises from endogenous country formation, controlling for $LANDAREA$ could help to limit omitted variable biases. More on this in section 5.

[23] The coefficients not shown typically are statistically insignificant, with occasionally alternating signs across the different empirical specifications.

influencing modern-era fractionalization is quite large. In the simplest regression in Table 3, for instance, one more violent incident in which Muslims fought Christians is associated with close to five percent less religious fractionalization, or a generally more homogenous religious community some 400 years later.[24] The result increases in magnitude as controls are introduced and remains statistically significant. Additionally, we see that the *duration* of Muslim versus Christian conflicts enters negatively, decreasing fractionalization by 6 to 9 percent depending on the specification, though reaching statistical significance only in column (2). The *frequency* of Jewish pogroms is also associated with increased religious fractionalization, although the magnitude and significance varies by specification. However, the duration of pogroms is associated with decreased fractionalization.

While these baseline results show a pattern that will remain at the fore the rest of the way, they also invite the question of why Muslim on Christian conflicts had an opposite impact than those between Protestants and Catholics or Jewish pogroms. There is no clear cut answer to this. A plausible conjecture is that the types of conflict in question also differ from one another in the extent to which the underlying sources of conflict have been mitigated or resolved in the course of time—however, superficially or fundamentally that may be.

In particular, the process through which the Protestant and Catholic Christian denominations came to terms with their underlying differences was arduous and prolonged. The seeds of this confrontation lay in centuries past and the 'heretical' movements of Lollardy, Huguenots and Hussites. The confrontation spanned more than 130 years between the start of the Reformation in 1517 and its culmination with the Treaty of Westphalia signed at the end of the Thirty Years War in 1648. When this fundamental ecclesiastical disagreement was eventually resolved, religious pluralism started to become the accepted

[24]The coefficient of $MUSLIMCHRISTIAN$ in the column (1) estimate of Table 3 is $-.016$. Given that the average fractionalization rate is .369 in our sample, this corresponds to a 4.3 percent lower fractionalization rate due to one extra conflict between Muslims and Christians.

European norm.

In contrast, one ought to bear in mind that the era that we are investigating coincides with a period when both Christianity and Islam had been established long ago, but the competition between them had once again intensified with the Ottomans' domination of eastern Europe in the 15th and 16th centuries and the *Spanish Reconquista* in 1492. As we alluded to in our introduction, the One God-One True Religion duality inherent in all three major monotheisms has historically been an important factor in sustaining violent encounters between Muslims and Christians. And these differences may account for why various different types of conflicts and violence influenced modern-day religious fractionalization across countries differently.

The fact that the *duration* of Jewish pogroms depressed religious fractionalization, whereas their *incidence* stimulated it is also puzzling. However, it is important to point out that the impact of duration is conditional on the incidence of pogroms and vice versa. Hence, what we are picking up might be the influence of a history of *sustained* suppression driving religious homogeneity. Moreover, fractionalization measures are based on self-reported data. Thus, a country with a history of religious repression might have forced Judaism to go underground by making it unacceptable to report being Jewish, thus leading to increased homogeneity.[25] Pogroms that lasted longer might have exerted more influence or simply encouraged out-migration and thus increased homogeneity.[26] On the flip side, pogroms could have invoked the same sort of mechanism as conflicts

[25]This was most certainly the case in the Iberian peninsula after 1492, but sporadically even before that.

In fact, starting in the 9th century, the Spanish *Reconquista* began to take shape with the Christian kingdoms up north pushing the frontiers southward into Muslim-held lands. By mid-13th century, Christian kingdoms had regained back most of the peninsula. Although the adherents of the three Abrahamic traditions coexisted on the peninsula rather peacefully by medieval standards even after the *Reconquista* began, there were on occasion flare ups, such as the movement of the *Cordoban Martyrs,* a group of al-Andalus Christians "who provoked and achieved martyrdom at Muslim hands in the ninth-century Cordoba," (Constable, 2006, p. 307).

[26]A large number of the Sephardim resettled in the Ottoman Empire during the reign of Sultan Beyazid II (r. 1481-1512) who dispatched the Ottoman navy for their transfer. The number of Sephardic Jews who were resettled in various parts of the still-fledgling Ottoman empire — in particular, in Salonica, Avlona, Palestine and Istanbul — is estimated to have totaled 100,000 (Kumrular, 2008, p.24).

within Christian sects discussed above, magnifying internal differences and subsequently resulting in increased religious fractionalization.

Returning back to our results, we see that, with the exception of some of the geographic dummy variables that come in statistically significant, although not robustly to changes of empirical specification, only a few of the right-hand side variables, which we singled out above, have explanatory power. Despite this observation, the fit of the regressions, even of the baseline version, is quite high as indicated by the R^2 measures.

[Table 3 about here.]

Tables 4 and 5 employ the same specifications shown in the previous table but with ethnic and linguistic fractionalization, respectively, as the dependent variables. Though the direction of the effect of religious conflicts on fractionalization is generally maintained, the impact of the latter on ethnic and linguistic fractionalization is overwhelmingly insignificant. One exception is provided by the statistically significant and negative impact of the *duration* of Muslim on Christian wars on ethnic fragmentation in columns (1), (2) and the negative and significant role of pogroms on ethnic fractionalization in column (2) of Table 4. Interestingly, the coefficient on the frequency of total confrontations, $TOTALCONFLICTS$, now enters negatively in five of the eight specifications in Tables 4 and 5, with three of the five also being statistically significant. In particular, the dampening influence of $TOTALCONFLICT$ on ethnic fractionalization in column (1) of Table 4 and its similarly negative impact on linguistic fractionalization in columns (1) and (2) of Table 5 contrast with the insignificant role of conflicts generally in religious fractionalization.

As shown in Tables 4 and 5, little else provides an evidently strong predictor of either ethnic or linguistic fractionalization. As discussed above, our data reflect a higher degree of religious fractionalization than either ethnic or linguistic. Thus, the lower levels and variance of ethnic and linguistic fractionalization might in part account for our results not being as strong as those reported in Table 3. Still, the effects of our explanatory

variables on ethnic fractionalization present slightly stronger and more uniform results over various specifications than linguistic fractionalization. This should again be viewed in light of the fact that our data reflect less linguistic fractionalization than ethnically. All in all, the weaker power of our set of right-hand side variables in explaining either ethnic or linguistic fractionalization vis-a-vis religious fractionalization is also manifested in the fit of the specifications as summarized by the R^2 measures in Tables 4 and 5.

[Tables 4 and 5 about here.]

4.3. Alternative Specifications & Robustness

Now we can turn to issues of robustness and a discussion of various alternative specifications.

First and foremost, there is rightly a question of causality. In this, we are encouraged by numerous factors already discussed herein, including the fact that, with very few exceptions, the European continent presented relatively low levels of fractionalization in the medieval period. Moreover, the addition of regional controls ought to account for outliers such as the Balkans and the Iberian Peninsula before 1492.

All the same, we decided to rerun our empirical tests using a three hundred-year time lag between our fractionalization observations and the conflict data. In particular, instead of tracking the patterns, types and attributes of violent confrontations over the half millennium between 1400 to 1900 CE, we generated an alternative variant of the conflict variables which was based on data covering the two centuries between 1400 and 1600 CE. This yielded 502 total conflicts in the 52 countries in our sample—instead of the 953 over the 500-year interval.[27]

Tables 6, 7, and 8 provide the results derived using this new sample but otherwise replicating the empirical specifications shown in Tables 3, 4 and 5, respectively. By

[27]We also examined our main findings using data for the period between 1400 and 1700 CE. Since those data yielded results that are analogous to the oned we discuss here, we have chosen not to report them.

incorporating a longer time lag, we see in Table 6 that the effect of wars on religious fractionalization are very much in line with—and in some cases, in fact, stronger—than using the entire period 1400 to 1900 CE. Not only are the R^2 measures comparable if not better than those shown in Table 3, but the three types of ecclesiastical conflict measures, $MUSLIMCHRISTIAN$, $PROTESTCATHOLIC$ and $POGROM$, are statistically significant in nine out of 12 times and directionally always consistent with the Table 3 results:[28] Muslim on Christian confrontations that took place between the 15th and 17th centuries depressed the current-day religious fractionalization of countries, although only in the column (4) regression does the coefficient on $MUSLIMCHRISTIAN$ attain significance at the 10 percent level. By contrast, the Protestant on Catholic conflicts or Jewish pogroms that took place four centuries ago or earlier raised religious fractionalization, entering the four specifications always positively and significantly.

While other control variables are typically insignificant, the geographic dummies for the Middle East, eastern Europe and the Balkans in some specifications are significant. And in terms of the duration of conflicts we again have some evidence that longer religious conflicts—in this case, $DURPOGROM$ only—typically reduced religious homogeneity. In terms of quantitative effects, the results we obtain with this longer-lag data are still stronger: in column (4) for instance, a ten percent higher incidence of Muslim on Christian wars is associated with close to a ten percent decrease in religious fractionalization, the magnitude of which is larger than the range implied by the regressions covering the entire 1400 to 1900 CE time period.

[Table 6 about here.]

In Tables 7 and 8 we report the estimates in which ethnic and linguistic fractionalization are defined as the dependent variables, respectively. The results using only the period 1400 to 1600 CE exhibit similar tendencies to those where the entire period was in

[28]For contrast, consider that $MUSLIMCHRISTIAN$, $PROTESTCATHOLIC$ and $POGROM$, are statistically significant in only five out of 12 specifications in Table 3.

use. In particular, our conflict data aren't as powerful in explaining ethnic or linguistic fractionalization as they are in religious fractionalization. However, the results shown in Tables 7 and 8 are still much stronger than those reported in Tables 4 and 5. In particular, $TOTALCONFLICTS$ has a depressing effect in one specification with ethnic fractionalization as the dependent variable and it has such an effect in two regressions where linguistic fractionalization is the dependent variable. This is in clear contrast to the results with religious fractionalization, which do not yield any explanatory power to the overall level of conflicts in fractionalization. The one significant difference between the results shown in Tables 7 and 8 vis-a-vis those reported in 4 and 5 is that $POGROM$ has a statistically significant, positive impact on ethnic and linguistic fractionalization in seven of the eight specifications, whereas $DURPOGROM$ has a negative and statistically significant impact on ethnic and linguistic fractionalization in six of the eight regressions shown. This effect is in line with those for religious fractionalization reported in Tables 3 and 6, but they are in contrast with those in Tables 4 and 5 where the impact of conflicts over the longer time horizon of 1400 to 1900 CE on ethnic and linguistic fractionalization is shown to be typically insignificant.[29]

[Tables 7 and 8 about here.]

A four-century lag between measures of conflict and fractionalization provides us some comfort that we are distilling off any impact fractionalization could have on conflicts. Nonetheless, even a four century lag would not compensate for omitted variable biases inherent in the results above. This is why we controlled for the dates of independence in some alternative estimates and substituted more or less aggregated geographic controls for countries in Europe in various other regressions. Neither of these alterations influenced the essence of our findings. Furthermore, for an empirical work whose key ex-

[29] Although none of the results discussed here control for it, we also ran our key regressions with the error terms clustered by geographic region. Doing so weakened some of the coefficients on $MUSLIMCHRISTIANWARS$ and made some coefficients statistically insignificant, but the qualitative nature of our results did not change.

planatory data cover the medieval era, our R^2 measures are unusually high, exceeding .75 in some specifications where religious fractionalization is the dependent variable. This is another reason why omitted variable biases are probably not exerting a meaningful bias in the results.

Of course, employing IV estimates could serve as a compelling alternative to lengthening our time lags or considering different sets of control variables. Here, we are somewhat handicapped due to the lack of viable instrumental variables: most available instruments for conflicts are plausible determinants of ethnic, religious or linguistic fractionalization too. However, the various measures of distance from Jerusalem, Rome and Mecca could serve as instruments for religious conflict, to the extent that (i) the historical patterns of ecclesiastical conflicts were shaped by proximity—or lack thereof—to geographic regions that have been pivotal for Judaism, Christianity and Islam; and (ii) the spread and contractions of Judaism, Christianity and Islam historically were predominantly driven by conflicts instead of peaceful proselytizing, so as to make religious, ethnic and even linguistic fractionalization functions of ecclesiastical conflict but not distance to the ecclesiastically-important cities.

With this possibility in mind, we estimated a 3-stage least squares IV regression. In the first stage of our 3-stage least squares IV estimation, we regressed $MUSLIM$ — $CHRISTIANWARS$ and $PROTESTANTCATHOLICWARS$ on $JERUSALEM$, $ROME$, $MECCA$, the two- and three-way interactions among those three distance measures as well as the dummies $EASTERNEU$ and $BALKANS$, which together define the buffer zone between eastern Europe and the near East. In the second stage, we then estimated the impact of $MUSLIMCHRISTIANWARS$ and $PROTESTANTCATH$ — $OLICWARS$ on fractionalization. And in the final stage, we regressed average economic growth rates over the period between 1970 and 2002 on fractionalization.[30] Doing

[30]Another limitation of this strategy is due to limited sample size: many of the east European, near Asian and Balkan countries in our sample became independent of the Iron Curtain in the early-1990s. Hence, economic growth data averaged over a relatively meaningful (read: long enough) time interval is available for only 30 of the 52 countries in the original sample.

so revealed a negative and statistically significant effect of religious, ethnic and linguistic fractionalization on economic growth.[31]

We experimented with additional control variables in our estimates, such as whether the countries were part of the East bloc, their dates of independence or the frequency and duration of conflicts between Muslim on Muslim players, in general, or those involving the Sunni and Shi'a denominations of Islam, in particular. Although we have chosen not to report these additional estimates here, doing so neither altered our central qualitative findings nor yielded significant coefficients on dates of independence or the standard measures of conflict involving Muslim versus Muslim actors. It did, however, generate typically positive coefficients on the dummy for the East bloc in regressions involving all three fractionalization measures.

As a final line of inquiry, what can we say about the role of violent conflicts in development through their impact on institutions? As we alluded to in our introduction, there is a strand in the empirical development literature which has shown that ethnic and linguistic fractionalization has detrimental effects on economic growth and development, but only indirectly. Since we have found that the history of religious conflicts had effects on modern-era cross-country differences in fractionalization, we ought to examine if conflicts alone can help to explain differences in institutional quality.

Table 9 reports our findings with countries' polity scores as the dependent variable, regressed on the standard explanatory variables. As shown, we pick up a strong impact of the history of conflicts over the period between 1400 to 1900 CE on the quality of polities in 1994.[32] Whereas the incidence of Muslim on Christian conflicts had a dampening effect on religious fractionalization, it is shown to have had positive and, in three of the four specifications, statistically significant effects on polities. In contrast, the incidence of pogroms yielded negative and in two of the four regressions statistically

[31] All results discussed but not shown, such as these, are available upon request.

[32] Running the same regressions with the 1400 to 1600 CE conflict data and the four century lag instead of one century produced very similar, if not stronger, results.

significant effects on polity scores. The duration of the three types of religious violence typically produced statistically significant effects on polities, although the directional impact of conflict duration was ambiguous, especially for $DURPROTESTCATH$ and $DURPOGROM$. We will have more to say on this topic in the next section.

[Table 9 about here.]

5. Discussion

The existing literature on the subject has long established a generally robust adverse impact of fractionalization on measures of institutional quality. And though we have chosen not to present them here for the sake of brevity, estimating the analogs of the regressions in Table 9, but replacing all of the various conflict measures which we controlled for thus far with the three alternative fractionalization measures, we too were able to verify the statistically significant, detrimental effects of ethnic and linguistic fractionalization, in particular, on polity scores.

Along with what we documented in Table 9, these findings raise an intriguing question: If fractionalization is influenced in part by violent conflicts and religious confrontations, which, together with fractionalization, then have a bearing on the cross-country differences in the quality of polities, do violence and religious confrontations have a *direct* role in $POLITY$ or do their effects filter only *indirectly* through fractionalization?

Given the data at hand, this is a question to which we can provide some answers. In Table 10 we attempt to do so.[33] Interestingly, when we include the three measures of fractionalization along with the standard list of conflict variables we relied on in the previous tables, we find that neither religious nor linguistic fractionalization impacts cross-country differences in institutional quality, as proxied by polity scores. But depending on the specification, some conflict measures continue to exert statistically significant effects

[33]These results were produced using conflict data covering the period between 1400 and 1900 CE, but an exercise in which we used data for the 1400 to 1600 CE interval instead generated qualitatively quite similar findings. Hence, we chose not to report them here.

on $POLITY$. For instance, the frequency of Muslim on Christian violent conflicts has positive coefficients in all four specifications and it is statistically significant in column (2) at the 5 percent level. Moreover, although its coefficient estimates aren't significant in the other regressions, the estimate of the $MUSLIMCHRISTIAN$ coefficient yields a p-value of 16 in column (3). These results are perfectly in line with—albeit somewhat weaker—than those reported in Table 9.[34]

[Table 10 about here.]

There are at least two not necessarily mutually exclusive observations we can make on this basis. One, the very long-run histories of conflict, in general, and those that are of an ecclesiastical nature, in particular, had some long-lasting and direct effects on cross-country differences in institutional quality. Two, the long-standing standard arguments as well as findings that fractionalization impacts institutions seem to be sensitive to whether or not the direct effects of the history of violence on institutions are controlled for, although the role of ethnic fractionalization in institutional quality seems to be the most robust. Third, the fact that religious and linguistic fractionalization don't seem to have robust effects on institutions is not tantamount to concluding that they have no impact on the evolution of institutions, although they do indeed suggest that fractionalization is endogenous.

If conflicts and religiously motivated or sustained confrontations do help to explain the cross-country variations in the quality of polities and the extent of fractionalization, then what factors influence the historical patterns of conflict? Besides some of the literature referenced above that puts a premium on cultural differences as a determinant of violent conflicts historically as well as the $3SLS\ IV$ estimates we reviewed above, some other influential contributions, such as Tilly (1992), have at least implicitly emphasized

[34]To see if violent conflicts impacted a narrower measure of polity, we ran regressions similar to the one we discuss here, using the democracy index score as the dependent variable instead. Doing so we generally found conflicts to have insignificant effects on democracy.

the role of technological change and geography. This is an area of ongoing investigation which we pursue in Iyigun, Nunn and Qian (in progress).

In interpreting our findings, it is important to bear in mind that our data cover the history of a limited geographic area extending from Europe, the Middle East, the near East to the Arabian peninsula and North Africa; they cover neither sub-Saharan Africa, Far East Asia nor the Americas. Thus, while our geographic coverage pertains to the regions of the world in which major ecclesiastical dynamics and interactions unfolded more frequently historically, one would have to be cautious in the external validity of these conclusions both in time and space.

Finally, let's return to the fact that our unit of analyses is based on country-wide data, although country size and border formations are obviously endogenous. This would be most relevant for our findings to the extent that causality runs from violent confrontations to country size and formation, to measures of fractionalization. To account for such effects and channels of causality, we typically controlled for land area and dates of independence. Neither of these controls had significant effects on fractionalization, although the role of violent conflicts remained robust to the inclusion of the controls. We find this indicative of the fact that the history of conflicts had independent effects on fractionalization which went beyond any role it brought to bear on country size and formation.

6. Conclusion

A sizable literature has shown that fractionalization influences economic development and growth indirectly, without yielding any evidence that the standard measures of ethnic or religious fractionalization have a quantitatively and statistically significant effect on violent conflict within countries.

We examined the long-run determinants of contemporary fractionalization across countries along the ethnic, linguistic and religious dimensions. Relying on some novel data that cover 953 violent confrontations which took place in 52 countries over the pe-

riod between 1400 and 1900 CE, we identified that the frequencies and types of conflict influenced contemporary levels of religious and to some extent ethnic fractionalization too. Specifically, we have demonstrated that the frequency of Muslim on Christian wars within a country's borders is a statistically significant and positive predictor of its current levels of religious homogeneity. By contrast, Protestant and Catholic confrontations within each country between the 15th and 19th centuries—and to some extent the incidence of Jewish pogroms too—produced more religious fractionalization today. And the longer were the duration of all such conflicts and violence, the less fractionalized countries are now. We have also established that these results are robust to the inclusion of various control variables.

In sum, the contemporary cross-country variations in religious heterogeneity reflect the *history* and *type* of ecclesiastical conflicts within countries. Those geographies where clashes took place more often and with a longer duration between Muslim and Christian 'civilizations' are likely to be the areas that are more homogenous today. Whereas the areas with a more frequent history of conflicts within the Judeo-Christian or Muslim 'civilizations' are more likely to be more heterogenous and fractionalized now.

It is this sort of endogeneity that would render the relationship between fractionalization and the propensity of internal conflict statistically insignificant. Whether or not Huntington's thesis is an accurate description of the future will continue to be debated and fiercely contested. All the same, our findings show that the demographic structure of countries in Europe, the Middle East and North Africa do manifest the effects of a multitude of ecclesiastical and cultural clashes that occurred throughout the course of history.

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Table 1: Wars & Religious Fractionalization by Country & Region

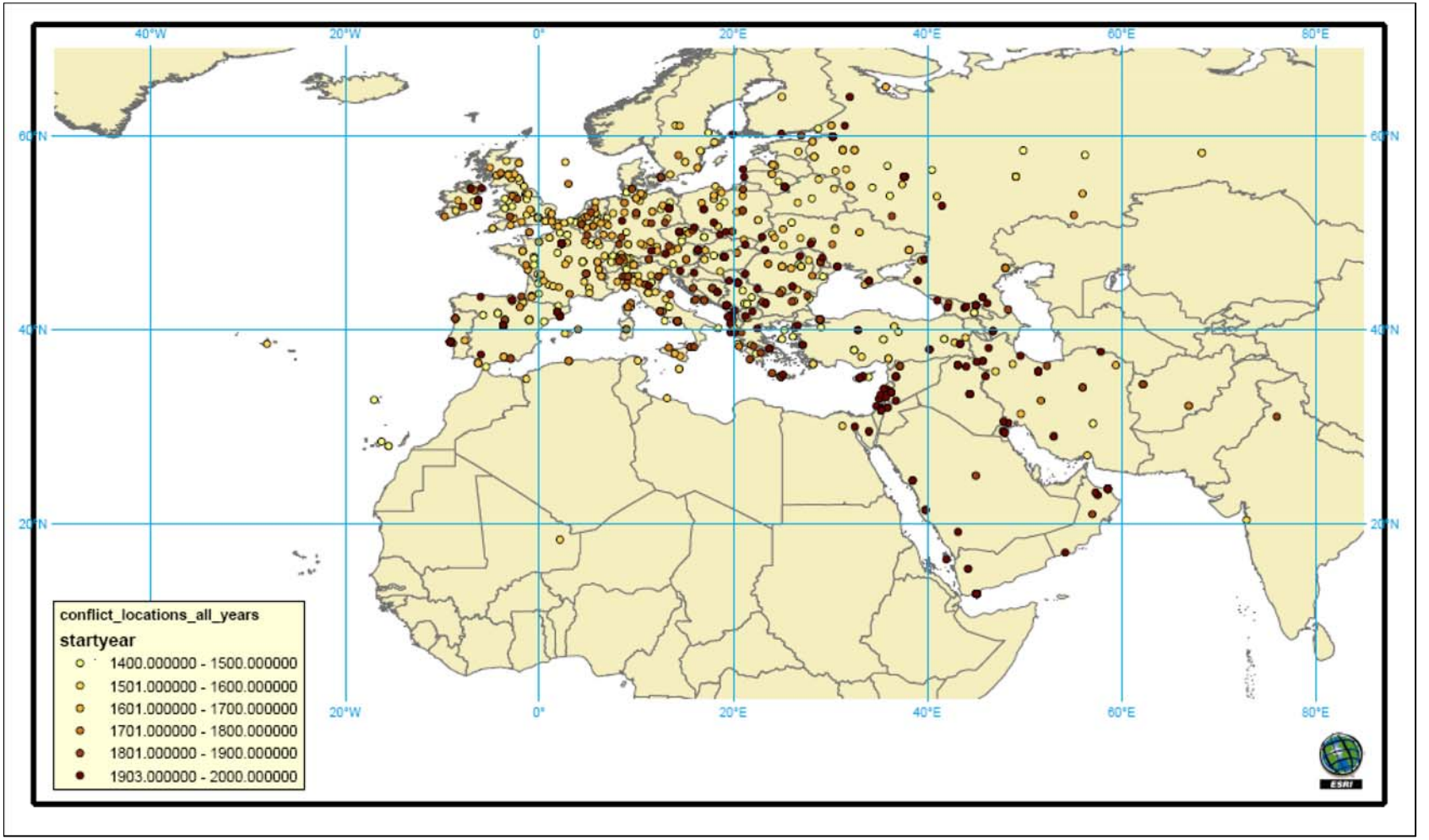
	Country	**Relig. Fr** (1)	**Total** (2)	**Musl/Chris** (3)	**Pro/Cath** (4)	**Region** (5)
1	Afghanistan	.2717	2	0	0	Asia
2	Albania	.4719	8	8	0	Balkans
3	Algeria	.0091	6	5	0	N. Africa
4	Armenia	.4576	2	2	0	Asia
5	Austria	.4146	32	8	0	East EU
6	Azarbeijan	.4899	2	1	0	Asia
7	Belarus	.6116	4	0	0	East EU
8	Belgium	.2127	16	0	0	West EU
9	Bosnia & Her	.6851	10	6	0	Balkans
10	Bulgaria	.5965	8	6	0	Balkans
11	Croatia	.4447	7	3	0	Balkans
12	Cyprus	.3962	3	1	0	M. East
13	Czech Rep.	.6591	16	1	4	East EU
14	Denmark	.2333	12	0	0	North EU
15	Egypt	.1979	7	1	0	N. Africa
16	Estonia	.4895	5	0	0	North EU
17	Finland	.2531	3	0	0	North EU
18	France	.4029	97	0	14	West EU
19	Gaza Strip	.0342	1	0	0	M. East
20	Georgia	.6543	9	1	0	Asia
21	Germany	.6571	40	0	7	Central EU
22	Greece	.1530	29	26	0	Balkans
23	Hungary	.5244	12	3	0	East EU
24	Iran	.1152	16	3	0	M. East
25	Iraq	.4844	5	0	0	M. East
26	Ireland	.1550	16	0	6	North EU
27	Israel	.3469	1	1	0	M. East
28	Italy	.3027	93	1	0	Central EU
29	Latvia	.5556	3	0	0	North EU
30	Lebanon	.7886	1	0	0	M. East
31	Libya	.0570	2	2	0	N. Africa
32	Lithuania	.4141	6	0	0	North EU

Table 1: (continued)

	Country	**Relig. Fr** (1)	**Total** (2)	**Musl/Chris** (3)	**Pro/Cath** (4)	**Region** (5)
33	Luxembourg	.0911	1	0	0	Central EU
34	Malta	.1223	3	3	0	Central EU
35	Moldova	.5603	4	4	0	East EU
36	Netherlands	.7222	16	0	0	West EU
37	Oman	.4322	8	4	0	M. East
38	Poland	.1712	48	7	0	East EU
39	Portugal	.1438	19	0	0	West EU
40	Romania	.2373	24	15	0	Balkans
41	Russia	.4398	92	25	0	East EU
42	Saudi Ara	.1270	5	1	0	M. East
43	Slovakia	.5655	6	1	0	East EU
44	Spain	.4514	54	7	0	West EU
45	Sweden	.2342	28	0	1	North EU
46	Switzerland	.6083	23	0	3	Central EU
47	Syria	.4310	9	0	0	M. East
48	Tunisia	.0104	3	2	0	N. Africa
49	Turkey	.0049	44	11	0	M. East
50	Ukraine	.6157	23	13	0	East EU
51	United Kgm	.6944	64	0	3	North EU
52	Yemen	.0023	5	2	0	M. East

Source: Religious fractionalization data, column (1) are from Alesina et al. (2003). The total number of violent conflicts, Muslim versus Christian and Protestant-Catholic confrontations reported in columns (2), (3) and (4),respectively are from Brecke (1999).

Figure 1: Conflitcs by Century and Country



Source: Iyigun, Nunn and Qian (in progress).

Table 2: Descriptive Statistics and the Correlation Matrix

1400 CE – 1900 CE			*The Correlation Matrix*								
$n = 52$	*Mean*	*St. Dev.*	*RELIG*	*ETHN*	*LING*	*AVGC*	*MSCHR*	*CATPR*	*POG*	*DURMC*	*DURCP*
RELIGFRAC	.369	.222	1	...	...	...	...	...	...	...	...
ETHNOFRAC	.304	.204	.083	1	...	...	...	...	...	...	...
LINGOFRAC	.269	.215	.248	.704	1	...	...	...	...	...	...
AVGCONFL.	18.3	23.8	.020	−.275	−.234	1	...	...	...	...	...
MUSCHRW	3.35	5.69	−.128	−.031	−.128	.356	1	...	...	...	...
PROCATW	.731	2.38	.133	−.203	−.170	.478	−.185	1	...	...	...
POGROM	.096	.358	.038	−.059	.010	.310	−.031	.236	1	...	...
DURMUSCH	1.73	2.18	−.124	.003	−.148	−.169	.299	−.231	−.185	1	...
DURPROCAT	.478	1.93	.230	−.093	−.066	.120	−.131	.496	−.022	−.093	1
DURPOGRO	.025	.140	.142	−.012	.107	−.022	−.093	.024	.499	−.146	−.035

1400 CE – 1900 CE			*The Correlation Matrix*								
$n = 52$	*Mean*	*St. Dev.*	*RELG*	*ETHN*	*LING*	*YRCON*	*YRMSCH*	*YRCTPR*	*YRPOG*	*ME*	*BALK*
RELFRAC	.369	.222	1	...	...	...	...	...	...	...	...
ETHNFRAC	.304	.204	.083	1	...	...	...	...	...	...	...
LINGFRAC	.269	.215	.168	.671	1	...	...	...	...	...	...
YR.CONF.	1644	99.4	.147	−.172	−.008	1	...	...	...	...	...
YR.MUSCH	934.8	811.2	−.074	−.068	−.097	.387	1	...	...	...	...
YR.PROCAT	210.8	539.8	.195	−.212	−.139	.095	−.310	1	...	...	...
YR.POGR.	115.4	404.5	.043	−.124	−.025	.067	−.168	.093	1	...	...
MIDEAST	.212	.412	−.034	.131	−.020	.063	.079	−.176	−.129	1	...
BALKANS	.115	.323	.093	.049	−.105	.148	.328	−.131	−.096	−.162	1
EASTEU	.096	.298	.243	−.093	−.008	−.035	.216	−.041	.070	−.217	−.162

Table 2: Continued

1400 CE – 1900 CE			*The Correlation Matrix*								
$n = 52$	*Mean*	*St. Dev.*	*RELIG*	*ETHN*	*LING*	*POL*	*GDP*	*BUFFR*	*EAST*	*ROM*	*JERUS*
RELIGFRAC	.369	.222	1	...	...	...	...	...	...	...	...
ETHNOFRAC	.304	.204	.087	1	...	...	...	...	...	...	...
LINGOFRAC	.269	.215	.296	.688	1	...	...	...	...	...	...
*POLITY*94	5.02	6.02	.151	−.400	−.201	1	...	...	...	...	...
GDPCAP	14644	10875	−.085	−.293	−.163	.570	1	...	...	...	...
BUFFRZNE	.25	.437	.203	.235	.049	.098	−.151	1	...	...	...
EASTBLOC	.346	.480	.465	.268	.153	.034	−.426	.585	1	...	...
ROME	1093	663.7	−.074	.327	.294	−.481	−.354	−.344	−.142	1	...
JERUS.	1368	650.0	−.068	−.103	−.022	.355	.233	−.072	−.085	−.148	1
MECCA	1951	763.3	.007	−.150	−.052	.472	.298	.045	.020	−.291	.916

Table 3: Impact of Conflicts on Religious Fractionalization (1400 – 1900 CE)

	Dependent Variable: Religious Fractionalization			
	(1)	(2)	(3)	(4)
TOTALCONFLICTS	.0008	−.001	.0002	.003
	(.002)	(.003)	(.006)	(.007)
MUSLIMCHRISTIAN	−.016**	−.020*	−.019**	−.022**
	(.008)	(.007)	(.010)	(.011)
PROTESTCATHOLIC	.002	−.0005	.002	.028
	(.016)	(.018)	(.035)	(.051)
POGROM	.117	.218	.329	.682*
	(.153)	(.161)	(.199)	(.240)
DURCONFLICTS	.053*	.054*	.062**	.053
	(.025)	(.026)	(.032)	(.034)
DURMUSLIMCHRIST	−.031	−.033**	−.039	−.027
	(.021)	(.019)	(.025)	(.029)
DURPROTESTCATH	.006	.003	.008	.012
	(.011)	(.010)	(.011)	(.025)
DURPOGROM	−.191	−.347	−.623*	−.136
	(.246)	(.228)	(.285)	(.576)
BALKANS	.532*	.509*	.333	.416**
	(.075)	(.129)	(.213)	(.232)
EASTERNEU	.513*	.422**	.204	.296
	(.092)	(.239)	(.329)	(.383)
MIDEAST	.250*	.253*	−.014	.040
	(.063)	(.070)	(.192)	(.218)
AFRICA	.013	−.219	.114	.585
	(.067)	(.237)	(.343)	(1.16)
LANDAREA	...	.00001	.00002	.00003
		(.00001)	(.00003)	(.00003)
MUSLIMAJOR	...	...	−.130	−.149
			(.184)	(.251)
CHRISTIANMAJOR	...	...	−.147	−.122
			(.135)	(.178)
R^2	.439	.478	.586	.616
No. of obs.	52	52	52	52

Note: * and ** respectively denote significance at the 5 percent and 10 percent levels. Dependent variable: religious fractionalization in 2001; source: Alesina et al. (2003). Source of conflict data: Brecke (1999). Source of population data: McEvedy and Jones (1978). Geographic dummy variables WESTERNEU, CENTRALEU, ISLAND, NORTHERNEU included in all regressions but now shown. POPULATION, EQUATOR, LANDLOCK included in columns (2) through (4) but not shown. POP1000, POP1500, ROME, JERUSALEM, MECCA included in columns (3) and (4) but not shown. YRCONFLICT, YRMUSLIMCHRIST, YRPROTESTCATH and YRPOGROM included in column (4) but not shown.

Table 4: Impact of Conflicts on Ethnic Fractionalization (1400 – 1900 CE)

	Dependent Variable: Ethnic Fractionalization			
	(1)	(2)	(3)	(4)
TOTALCONFLICTS	−.0026**	−.0026	.0011	.0091
	(.0015)	(.0021)	(.0056)	(.0099)
MUSLIMCHRISTIAN	−.0010	−.0063	−.015	−.024
	(.0072)	(.0087)	(.012)	(.015)
PROTESTCATHOLIC	−.0001	−.0029	.008	.079
	(.011)	(.013)	(.027)	(.069)
POGROM	.152	.197	.138	.641*
	(.134)	(.153)	(.200)	(.263)
DURCONFLICTS	.029	.048**	.038	.021
	(.025)	(.028)	(.034)	(.037)
DURMUSLIMCHRIST	−.037*	−.051*	−.041	−.023
	(.017)	(.019)	(.026)	(.030)
DURPROTESTCATH	−.010	−.012	−.007	.014
	(.013)	(.013)	(.015)	(.028)
DURPOGROM	−.314	−.435**	−.511	.250
	(.209)	(.238)	(.370)	(.741)
BALKANS	−.002	.127	.181	.290
	(.231)	(.275)	(.367)	(.402)
EASTERNEU	−.039	−.076	.080	.111
	(.239)	(.290)	(.429)	(.495)
MIDEAST	−.039	−.026	−.405	−.307
	(.242)	(.234)	(.391)	(.449)
AFRICA	.443	.468	.466	.962
	(.276)	(.344)	(.476)	(1.20)
LANDAREA	...	.00003**	.00002	.00004
		(.000015)	(.00002)	(.00003)
MUSLIMAJOR	...	...	−.093	−.119
			(.161)	(.221)
CHRISTIANMAJOR	...	...	−.113	−.090
			(.149)	(.189)
R^2	.265	.328	.428	.510
No. of obs.	50	50	50	50

Note: * and ** respectively denote significance at the 5 percent and 10 percent levels. Dependent variable: religious fractionalization in 2001; source: Alesina et al. (2003). Source of conflict data: Brecke (1999). Source of population data: McEvedy and Jones (1978). Geographic dummy variables WESTERNEU, CENTRALEU, ISLAND, NORTHERNEU included in all regressions but now shown. POPULATION, EQUATOR, LANDLOCK included in columns (2) through (4) but not shown. POP1000, POP1500, ROME, JERUSALEM, MECCA included in columns (3) and (4) but not shown. YRCONFLICT, YRMUSLIMCHRIST, YRPROTESTCATH and YRPOGROM included in column (4) but not shown.

Table 5: Impact of Conflicts on Linguistic Fractionalization (1400 – 1900 CE)

	Dependent Variable: Linguistic Fractionalization			
	(1)	(2)	(3)	(4)
TOTALCONFLICTS	−.0031**	−.0037**	−.0012	.0075
	(.0017)	(.0022)	(.0050)	(.0089)
MUSLIMCHRISTIAN	.0043	.0003	−.0077	−.021
	(.0089)	(.010)	(.010)	(.013)
PROTESTCATHOLIC	−.0064	−.014	.0087	.077
	(.015)	(.019)	(.030)	(.060)
POGROM	.041	.143	.138	.414
	(.097)	(.137)	(.175)	(.243)
DURCONFLICTS	.043	.060*	.052	.019
	(.027)	(.030)	(.038)	(.033)
DURMUSLIMCHRIST	−.024	−.037	−.039	−.023
	(.020)	(.024)	(.034)	(.032)
DURPROTESTCATH	−.0046	−.008	−.0035	.016
	(.015)	(.018)	(.019)	(.028)
DURPOGROM	.030	−.186	−.558	.197
	(.211)	(.163)	(.407)	(.584)
BALKANS	.050	.073	.039	.063
	(.183)	(.226)	(.267)	(.290)
EASTERNEU	.155	−.043	.090	−.064
	(.151)	(.234)	(.313)	(.362)
MIDEAST	.112	.113	−.525*	−.414
	(.133)	(.124)	(.232)	(.334)
AFRICA	.125	−.072	.247	.604
	(.135)	(.258)	(.352)	(1.05)
LANDAREA	...	.00002	.00002	.00003
		(.00002)	(.00002)	(.00003)
MUSLIMAJOR	...	...	−.297**	−.364*
			(.179)	(.145)
CHRISTIANMAJOR	...	...	−.296	−.343*
			(.179)	(.157)
R^2	.245	.311	.562	.675
No. of obs.	52	52	52	52

Note: * and ** respectively denote significance at the 5 percent and 10 percent levels. Dependent variable: religious fractionalization in 2001; source: Alesina et al. (2003). Source of conflict data: Brecke (1999). Source of population data: McEvedy and Jones (1978). Geographic dummy variables WESTERNEU, CENTRALEU, ISLAND, NORTHERNEU included in all regressions but now shown. POPULATION, EQUATOR, LANDLOCK included in columns (2) through (4) but not shown. POP1000, POP1500, ROME, JERUSALEM, MECCA included in columns (3) and (4) but not shown. YRCONFLICT, YRMUSLIMCHRIST, YRPROTESTCATH and YRPOGROM included in column (4) but not shown.

Table 6: Impact of Conflicts on Religious Fractionalization (1400 – 1600 CE)

	Dependent Variable: Religious Fractionalization			
	(1)	(2)	(3)	(4)
TOTALCONFLICTS	−.0003	−.002	.0003	.007
	(.003)	(.003)	(.007)	(.006)
MUSLIMCHRISTIAN	−.022	−.026	−.025	−.033**
	(.016)	(.017)	(.024)	(.018)
PROTESTCATHOLIC	.047*	.049**	.063*	.355*
	(.021)	(.023)	(.035)	(.072)
POGROM	.531*	.589***	.683**	1.64*
	(.154)	(.155)	(.168)	(.300)
DURCONFLICTS	.016	.012	.013	−.028
	(.011)	(.012)	(.012)	(.021)
DURMUSLIMCHRIST	−.010	−.002	.006	.043
	(.017)	(.015)	(.021)	(.027)
DURPROTESTCATH	−.005	−.0001	.009	.001
	(.018)	(.017)	(.021)	(.025)
DURPOGROM	−9.48*	−9.68*	−9.57*	−385.3*
	(3.62)	(3.63)	(3.767)	(72.16)
BALKANS	.444*	.415*	.275	.019
	(.070)	(.136)	(.230)	(.330)
EASTERNEU	.462*	.423**	.328	.077
	(.069)	(.172)	(.336)	(.382)
MIDEAST	.212*	.224*	.124	−.174
	(.088)	(.099)	(.217)	(.244)
AFRICA	−.080	−.061	.236	.360*
	(.071)	(.254)	(.274)	(.454)
LANDAREA	...	.00000001	.00000002	.00000002
		(.00000001)	(.00000002)	(.00000002)
MUSLIMAJOR	...	...	−.179	−.363**
			(.178)	(.187)
CHRISTIANMAJOR	...	...	−.142	−.278*
			(.117)	(.132)
R^2	.455	.474	.600	.754
No. of obs.	52	52	52	52

Note: * and ** respectively denote significance at the 5 percent and 10 percent levels. Dependent variable: religious fractionalization in 2001; source: Alesina et al. (2003). Source of conflict data: Brecke (1999). Source of population data: McEvedy and Jones (1978). Geographic dummy variables WESTERNEU, CENTRALEU, ISLAND, NORTHERNEU included in all regressions but not shown. POPULATION, EQUATOR, LANDLOCK included in columns (2) through (4) but not shown. POP1000, POP1500, ROME, JERUSALEM, MECCA included in columns (3) and (4) but not shown. YRCONFLICT, YRMUSLIMCHRIST, YRPROTESTCATH and YRPOGROM included in column (4) but not shown.

Table 7: Impact of Conflicts on Ethnic Fractionalization (1400 – 1600 CE)

	Dependent Variable: Ethnic Fractionalization			
	(1)	(2)	(3)	(4)
TOTALCONFLICTS	$-.005^{**}$	$-.004$	.003	.012
	(.002)	(.003)	(.007)	(.011)
MUSLIMCHRISTIAN	.003	$-.007$	$-.019$	$-.036$
	(.021)	(.020)	(.026)	(.025)
PROTESTCATHOLIC	.022	.020	.031	.111
	(.017)	(.019)	(.052)	(.107)
POGROM	$.411^{*}$	$.467^{*}$	$.400^{*}$	.667
	(.087)	(.139)	(.189)	(.432)
DURCONFLICTS	.016	$.026^{**}$	.020	$-.016$
	(.015)	(.014)	(.017)	(.035)
DURMUSLIMCHRIST	$-.003$	$-.014$	$-.002$	.032
	(.018)	(.021)	(.026)	(.044)
DURPROTESTCATH	$-.003$	$-.006$	.001	$.077^{*}$
	(.014)	(.014)	(.018)	(.036)
DURPOGROM	-6.62^{*}	-7.67^{*}	-7.07^{**}	-8.27
	(2.49)	(3.366)	(3.832)	(118.5)
BALKANS	$-.047$	.074	.155	$-.031$
	(.220)	(.247)	(.310)	(.452)
EASTERNEU	$-.079$	$-.114$	.093	$-.084$
	(.219)	(.266)	(.358)	(.484)
MIDEAST	.003	$-.002$	$-.237$	$-.202$
	(.242)	(.231)	(.329)	(.403)
AFRICA	.360	.481	.464	$-.090$
	(.241)	(.353)	(.400)	(.541)
LANDAREA	...	.00000003	.00000002	.00000003
		(.0000002)	(.00000002)	(.0000002)
MUSLIMAJOR	...	...	$-.094$	$-.257$
			(.178)	(.174)
CHRISTIANMAJOR	...	...	$-.077$	$-.153$
			(.123)	(.137)
R^2	.267	.329	.444	.580
No. of obs.	50	50	50	50

Note: * and ** respectively denote significance at the 5 percent and 10 percent levels. Dependent variable: religious fractionalization in 2001; source: Alesina et al. (2003). Source of conflict data: Brecke (1999). Source of population data: McEvedy and Jones (1978). Geographic dummy variables WESTERNEU, CENTRALEU, ISLAND, NORTHERNEU included in all regressions but not shown. POPULATION, EQUATOR, LANDLOCK included in columns (2) through (4) but not shown. POP1000, POP1500, ROME, JERUSALEM, MECCA included in columns (3) and (4) but not shown. YRCONFLICT, YRMUSLIMCHRIST, YRPROTESTCATH and YRPOGROM included in column (4) but not shown.

Table 8: Impact of Conflicts on Linguistic Fractionalization (1400 – 1600 CE)

	Dependent Variable: Linguistic Fractionalization			
	(1)	(2)	(3)	(4)
TOTALCONFLICTS	$-.006^{*}$	$-.007^{***}$	$-.0006$	.0007
	(.002)	(.004)	(.006)	(.008)
MUSLIMCHRISTIAN	.003	$-.004$	$-.007$	$-.037^{**}$
	(.019)	(.024)	(.022)	(.022)
PROTESTCATHOLIC	.025	.019	.055	.049
	(.020)	(.025)	(.044)	(.097)
POGROM	$.396^{**}$	$.453^{**}$	$.390^{*}$	$.356^{*}$
	(.115)	(.192)	(.192)	(.372)
DURCONFLICTS	.015	.024	.017	$-.002$
	(.013)	(.015)	(.019)	(.030)
DURMUSLIMCHRIST	$-.0008$	$-.010$	$-.003$	.014
	(.021)	(.026)	(.032)	(.036)
DURPROTESTCATH	.00006	$-.0002$	.015	.084
	(.016)	(.016)	(.017)	(.036)
DURPOGROM	-8.43^{*}	-8.67^{*}	-7.54^{*}	-94.81
	(2.00)	(3.210)	(2.848)	(117.67)
BALKANS	.025	.046	.155	$-.015$
	(.177)	(.231)	(.266)	(.292)
EASTERNEU	.143	$-.040$	.150	.150
	(.132)	(.245)	(.227)	(.281)
MIDEAST	$.124^{**}$	.116	$-.393$	$-.316$
	(.145)	(.169)	(.222)	(.294)
AFRICA	.128	$-.191$	.316	$-.121$
	(.151)	(.171)	(.289)	(.413)
LANDAREA	...	.0000002	.00000003	.00000003
		(.000002)	(.00000002)	(.00000002)
MUSLIMAJOR	...	...	$-.326^{*}$	$-.400^{*}$
			(.172)	(.181)
CHRISTIANMAJOR	...	...	$-.251^{**}$	$-.299^{**}$
			(.145)	(.151)
R^2	.223	.315	.592	.690
No. of obs.	52	52	52	52

Note: * and ** respectively denote significance at the 5 percent and 10 percent levels. Dependent variable: religious fractionalization in 2001; source: Alesina et al. (2003). Source of conflict data: Brecke (1999). Source of population data: McEvedy and Jones (1978). Geographic dummy variables WESTERNEU, CENTRALEU, ISLAND, NORTHERNEU included in all regressions but not shown. POPULATION, EQUATOR, LANDLOCK included in columns (2) through (4) but not shown. POP1000, POP1500, ROME, JERUSALEM, MECCA included in columns (3) and (4) but not shown. YRCONFLICT, YRMUSLIMCHRIST, YRPROTESTCATH and YRPOGROM included in column (4) but not shown.

Table 9: Impact of Conflicts on Polity Scores in 1994 (1400 – 1900 CE)

	Dependent Variable: 1994 Polity Scores			
	(1)	(2)	(3)	(4)
TOTALCONFLICTS	−.036	.054	−.040	−.334
	(.053)	(.042)	(.126)	(.213)
MUSLIMCHRISTIAN	.414	.913*	1.134*	1.570*
	(.324)	(.227)	(.507)	(.712)
PROTESTCATHOLIC	−.085	−.223	−.329	1.550
	(.254)	(.303)	(.737)	(1.608)
POGROM	−1.09	−7.01*	−5.46	−2.42
	(2.11)	(1.99)	(3.97)	(5.61)
DURCONFLICTS	.188	.095	.135	−.421
	(.352)	(.354)	(.262)	(.385)
DURMUSLIMCHRIST	−.457	−.440	−.474	−.804
	(.373)	(.350)	(.511)	(.543)
DURPROTESTCATH	.491*	.342*	−2.40**	−.103
	(.239)	(.256)	(.377)	(1.253)
DURPOGROM	13.22	95.58*	77.21	−4319.2**
	(25.12)	(35.06)	(57.01)	(2255.3)
BALKANS	7.62	3.369	−.110	−2.22
	(3.206)	(3.533)	(5.186)	(6.289)
EASTERNEU	12.022*	9.822*	4.751	6.592
	(2.836)	(3.851)	(5.490)	(5.833)
MIDEAST	3.891	−1.609	8.553	10.948
	(3.547)	(3.730)	(6.239)	(7.312)
AFRICA	−4.319	−5.547	−.964	4.238
	(3.203)	(3.920)	(6.447)	(8.420)
LANDAREA	...	−.0000009*	−.0000009*	−.000001
		(.0000002)	(.0000004)	(.0000004)
MUSLIMAJOR	...	...	−.826	−3.361
			(2.503)	(4.681)
CHRISTIANMAJOR	...	...	2.957	−1.391
			(3.282)	(4.524)
R^2	.660	.767	.826	.873
No. of obs.	49	49	49	49

Note: * and ** respectively denote significance at the 5 percent and 10 percent levels. Dependent variable: religious fractionalization in 2001; source: Alesina et al. (2003). Source of conflict data: Brecke (1999). Source of population data: McEvedy and Jones (1978). Geographic dummy variables WESTERNEU, CENTRALEU, ISLAND, NORTHERNEU included in all regressions but not shown. POPULATION, EQUATOR, LANDLOCK included in columns (2) through (4) but not shown. POP1000, POP1500, ROME, JERUSALEM, MECCA included in columns (3) and (4) but not shown. YRCONFLICT, YRMUSLIMCHRIST, YRPROTESTCATH and YRPOGROM included in column (4) but not shown.

Table 10: Impact of Conflicts versus Fractionalization on Polity Sc. (1400 – 1900 CE)

	Dependent Variable: 1994 Polity Scores			
	(1)	(2)	(3)	(4)
RELIGIOUSFRAC	1.689	1.011	−3.358	1.679
	(3.524)	(2.830)	(4.849)	(4.286)
ETHNOFRAC	−10.32*	−8.316*	−7.452*	−2.377
	(4.669)	(3.991)	(3.323)	(5.193)
LINGOFRAC	−0.704	.907	3.728	−2.267
	(5.489)	(4.182)	(4.860)	(6.574)
TOTALCONFLICTS	−.0452	.025	−.026	−.115
	(.034)	(.025)	(.069)	(.109)
MUSLIMCHRISTIAN	.154	.394*	.422	−.115
	(.171)	(.159)	(.292)	(.326)
PROTESTCATHOLIC	.037	−.014	−.138	−.969
	(.206)	(.159)	(.428)	(.729)
POGROM	2.931	.042	.973	−10.879*
	(2.249)	(2.095)	(3.194)	(5.755)
DURCONFLICTS	1.128	.498	.549	.385
	(.717)	(.604)	(.735)	(.828)
DURMUSLIMCHRIST	−.426	−.052	−.274	−.570
	(.429)	(.463)	(.730)	(.696)
DURPROTESTCATH	.070	.209	.210	−.127
	(.200)	(.128)	(.190)	(.342)
DURPOGROM	−4.737	−.402	1.798	−2.212
	(3.774)	(3.904)	(6.662)	(11.151)
AFRICA	−2.643*	−4.639	.531	−22.156
	(4.520)	(4.034)	(5.99)	(23.30)
LANDAREA	...	.0000008*	.0000006	−.000001**
		(.0000002)	(.0000004)	(.0000005)
MUSLIMAJOR	...	...	−.322	−1.281
			(2.847)	(4.782)
CHRISTIANMAJOR	...	...	2.631	.561
			(3.784)	(6.803)
R^2	.764	.818	.859	.909
No. of obs.	48	48	48	48

Note: * and ** respectively denote significance at the 5 percent and 10 percent levels. Dependent variable: religious fractionalization in 2001; source: Alesina et al. (2003). Source of conflict data: Brecke (1999). Source of population data: McEvedy and Jones (1978). Geographic dummy variables WESTERNEU, CENTRALEU, NORTHERNEU, ISLAND, BALKANS, MIDDLEAST included in all regressions but not shown. POPULATION, EQUATOR, LANDLOCK included in columns (2) through (4) but not shown. POP1000, POP1500, ROME, JERUSALEM, MECCA included in columns (3) and (4) but not shown. YRCONFLICT, YRMUSLIMCHRIST, YRPROTESTCATH and YRPOGROM included in column (4) but not shown.