

# Is There a Clash of Civilizations? Evidence from Patterns of International Conflict Involvement, 1946–97\*

GIACOMO CHIOZZA

*Department of Political Science, Duke University*

This article offers an empirical test of Huntington's thesis in *The Clash of Civilizations*. Huntington argues that states belonging to different civilizations will have a higher propensity to be involved in international conflict. This effect should be more prominent in the post-Cold War period. The civilization factor should also interact with membership in different Cold War blocs, border contiguity, regime type, and levels of modernization, magnifying or depressing the basic effects of these variables. To test these hypotheses, a logit specification with King & Zeng's solution for rareness of events is used on the Kosimo data. The Kosimo data allow for an extension of the empirical analysis from both a temporal and a substantive point of view. This study shows that state interactions across the civilizational divide are not more conflict prone. The first eight years of the post-Cold War era also fail to give support to Huntington's thesis. Moreover, while the civilization factor modifies the effects of border contiguity and regime type, this is not sufficient to generate conditions under which differences in civilizational heritage are associated with greater risks of conflict.

## Introduction

Samuel Huntington's *The Clash of Civilizations and the Remaking of World Order* has sent intellectual shock waves through the international affairs academic and policy communities. According to the editors of *Foreign Affairs*, the article that Huntington (1993a) wrote in 1993 generated more discussion in three years than any other article they had published since the 1940s. And deservedly so: of all the theoretical

frameworks that have gained visibility in the field in the last decade, Huntington's is among the most thought-provoking and controversial.

In Huntington's vision, the dynamics of interstate interaction in the post-Cold War period will be primarily molded by civilizational factors. While the state continues to be the principal actor in the international domain, its identity and interests will be shaped by its civilizational heritage. And its behavior will be affected accordingly: conflict between civilizations and cooperation within civilizations is Huntington's prediction for the future of world politics. 'In this new world order', Huntington (1996: 28) maintains, 'the most pervasive, important, and dangerous conflicts will not be between social classes, rich and poor, or other economically

\* I would like to thank Chris Gelpi, Hein Goemans, Joe Grieco, Errol Henderson, and Robert Keohane for helpful comments to previous versions of this project. The statistical analysis was performed using Stata 7 and King & Zeng's (2001a,b) Relogit program. A replication dataset is available at the *JPR* website: <http://www.prio.no/jpr/datasets.asp>. An appendix containing additional analyses is also available at the *JPR* website. Mistakes, omissions, and other infelicities are my own responsibility.

defined groups, but between peoples belonging to different cultural entities'.

Drawing on a vast array of historical and philosophical sources, Huntington (1996: 43) defines a civilization as 'the highest cultural grouping of people and the broadest level of cultural identity people have short of that which distinguishes humans from other species. It is defined both by common objective elements, such as language, history, religion, customs, institutions, and by the subjective self-identification of people.' This perspective differentiates the Clash-of-Civilizations (CofC) thesis from other current arguments about the emergence of nationalism and ethnic movements, for Huntington's argument is not just about the emergence of particularistic identities, be they national, ethnic, or religious. It is a novel argument about shifting loyalties: away from the nation-state and towards larger identity groups that transcend national boundaries.

In this vein, identification with larger cultural communities should replace narrowly defined allegiances to the nation-state. Patterns of enmity between countries which are members of the same civilization – Georgia and Russia, or China and Vietnam are Huntington's (1996: 155–156) examples – are bound to disappear, no matter what their current discrepancies and misunderstandings might be.<sup>1</sup> At the same time, patterns of cooperation between countries of different civilization are likely to become shallower, no matter how consolidated they might seem to be. The logic that drives this process is to be found in a psychological need for identification: people yearn for groupings, and blood, faith, and beliefs are their most basic and persistent sources.

Several indicators are invoked to substantiate these claims. In a fascinating tapestry,

Huntington weaves together historical events, state policies, interstate dynamics, mass attitudes, and elite opinions to show that the civilizational factor is what makes sense of them all at a single stroke. 'If not civilizations, what?', Huntington (1993b) provocatively asks, stirring up worldwide debate.

But, while controversies abound, systematic empirical analyses are scarcer, and generally unresponsive of Huntington's (1996) argument. According to Russett, Oneal & Cox (2000), and Henderson & Tucker (2001), intercivilization dyads are less, and not more, conflict prone.<sup>2</sup> But, before sounding the death knell of the CofC thesis, we should acknowledge the limitations of these empirical tests. First, their coverage of the post-Cold War period is limited: both studies stop their analyses in 1992. This might be problematic insofar as Huntington (1996: 13) himself acknowledges that his civilizational approach is not a work of social science, but only an interpretation of the likely evolution of global politics after the Cold War. As he concedes (1996: 14), the civilizational approach is likely to be ill suited to account for conflict patterns in earlier temporal domains. Given the strict temporal constraint of those studies, the potential impact of the civilization factor might have been swamped in a vast array of noisy data or might not yet have been sufficiently pronounced to be detected by large-N statistical analyses.

Second, the Cold War poses a demanding empirical challenge for the CofC thesis, for any alleged intercivilizational conflict might just have been an epiphenomenon of the confrontation between the Free World and the Communist blocs. This is obviously true for the rivalry between the United States and the Soviet Union, a Western and an

<sup>1</sup> This expectation notwithstanding, Huntington (1996: 312–318) depicts a scenario in which a conflict between China and Vietnam sets off a larger civilizational conflagration.

<sup>2</sup> Gurr (1994) and Fox (2001) assess the CofC thesis with respect to ethnic conflict within states. Both studies find little support for Huntington's (1996) argument.

Orthodox country in civilizational terms. And this is potentially true for many international crises that took place across the Iron Curtain. Observing that the likelihood of a dispute in intercivilizational dyads waxes and wanes in line with the intensity of the Cold War, as Russett, Oneal & Cox (2000: 600) do, may not be a sufficient basis for refutation of Huntington's (1996: 39) argument about the restraining effects of the Cold War on intercivilizational conflict.

Third, previous studies have not investigated the possibility that the civilization factor might influence the probability of conflict by altering the operation of other causal variables. The civilizational status of a pair of countries might be a 'moderator' variable that magnifies or depresses the effects of key predictors of conflict. Should that be the case, there might be conditions under which countries of different civilization might experience higher risks of military confrontation than same-civilization countries.

In this article, a new test is offered of Huntington's CofC argument, one that seeks to address the potential drawbacks attendant on earlier investigations of the CofC thesis. This test introduces four specific innovations. First, it employs a new conflict dataset, the Kosimo dataset (Pfetsch & Rohloff, 2000), that covers a larger number of years in the post-Cold War period than the MID and COW data used by Russett, Oneal & Cox (2000), and Henderson & Tucker (2001). This allows for an extension of the domain of investigation by five years during the post-Cold War period, that is from 1993 to 1997.<sup>3</sup> Second, it differentiates the patterns of state interaction in the Cold War across the civilizational and ideological divides, and investigates how they interact. Third, this study evaluates whether the impact on the probability of conflict of three

key variables, namely border contiguity, regime type, and modernization, varies across same-civilization and different-civilization dyads. This research design offers an assessment of whether the civilizational status of a dyad has an indirect, but not less important, effect on conflict. Finally, a new estimator – King & Zeng's (2001a,b) rare events logit model – is used, which should allow for more precise estimates of the relevant parameters.

The discussion below proceeds in three steps. First, there is a specification of a set of hypotheses on the relationship between civilizational membership and international conflict involvement. Second, research design and measurement issues are discussed. The third section puts forward an analysis of the results and an assessment of their implications for the CofC hypotheses.

This analysis shows that, as Huntington's critics have suggested, intercivilization dyads are in general less likely to get involved in international disputes. This is true even in the post-Cold War years, the period in which Huntington believes his thesis is most likely to show its empirical power. Moreover, while intercivilizational dynamics interact with, and modify, the impact of geographic contiguity and regime type on the probability of dispute involvement, these effects are not strong enough to generate a conflict syndrome for countries of different civilizations.

### Hypotheses on the Clash of Civilizations

The main thrust of Huntington's argument is that countries belonging to different civilizations are more likely to find themselves embroiled in international confrontations that might lead to an outburst of violence. What characterizes intercivilization dyads is the lingering presence of conflictual interactions. As Huntington (1996: 291) writes, 'Fault line wars are intermittent; fault

<sup>3</sup> The Kosimo dataset records data until 1999, but data availability on the explanatory variables limits the period under investigation to 1997.

line conflicts are interminable.' Conditions exist under which the use of force is deterred or a ceasefire is enforced, but none is likely to last for long as the lack of trust, the difficulties in mutual understanding, and the indivisibility of the issues under dispute make jointly satisfactory settlements of controversies improbable. Moreover, should a crisis occur, it is likely to spiral to higher levels of violence: '[fault line] conflicts tend to be vicious and bloody, since fundamental issues of identity are at stake' (Huntington, 1996: 252).

This argument might be interpreted as a form of cultural realism: the venerable realist tenet of zero-sum state competition is coupled with a new understanding of the sources of state interests.<sup>4</sup> General values, ethnic identities, and religious beliefs inform the goals states pursue, shape the perceptions the decisionmakers hold, and characterize the patterns of friendship and enmity in the international arena. Civilizations are not deemed to replace states as the primary movers of world politics. Their influence is indirect, but not less pervasive: civilizations shape a state's fundamental interests by defining its identity. In Huntington's framework, 'who are you?' has become the central question of 21st-century world politics. And that question is increasingly answered in civilizational terms (Huntington, 1996: 125).

Ideational factors, therefore, play a central role in the CofC theoretical construct. Identification with a civilization is seen as an enduring and inalienable feature that states cannot transcend. Those who try – Australia, Mexico, Russia, and Turkey are Huntington's (1996: 139–154) examples – embark themselves on a process that is prolonged and politically costly, and that has to date failed. In this respect, Huntington's (1996) argument is reminiscent of the primordialist perspective on ethnic and nationalistic

violence that posits that cultural factors are a 'given' that inevitably set peoples apart, and onto a conflictual path (for an overview, see Fearon & Laitin, 2000; Henderson, 1997; Mercer, 1995).

The behavioral implications that are drawn from this scenario are gloomy: as a new civilizational awareness emerges, discord and conflict are deemed to be increasing. The sources of conflict might indeed remain those that have plagued humankind since time immemorial: control of people, territory, and wealth (Huntington, 1996: 129). But the cultural dimension that is now attached to those factors makes compromise unlikely, if not impossible. Given the indivisible nature of the issues at stake, intense conflict becomes a pervasive characteristic of relations across the civilizational divide. This yields the following central hypothesis:

*H1:* Intercivilizational dyads are more likely to be involved in international conflict.

A second central aspect of Huntington's argument is that the civilization factor is bound to become a prominent element in the redefinition of the pattern of rivalries in the post-Cold War era. As Huntington (1996: 125) argues, 'Spurred by modernization, global politics is being reconfigured along cultural lines . . . Cultural communities are replacing Cold War blocs, and the fault lines between civilizations are becoming the central lines of conflict in global politics.'

Not that the CofC perspective is entirely devoid of explanatory power in other temporal domains: relations between the Islamic civilization and the West, for example, have been punctuated with tensions, incomprehension, and ghastly violence for centuries (Huntington, 1996: 209–218). But if Huntington's argument has decisive empirical relevance, it should emerge most clearly in the aftermath of the Cold War, as the bipolar rivalries have started to thaw and new

<sup>4</sup> This label is borrowed from Henderson (1997). Needless to say, this usage is different from Johnston's (1995).

controversies have come to the fore. No longer constrained by the ideological confrontation of the Cold War, differences in the civilizational heritage should play a key role in the emerging pattern of international conflict involvement. Thus,

*H2:* The probability of conflict involvement for different-civilization dyads has increased since the end of the Cold War.

'Wars between clans, tribes, ethnic groups, religious communities, and nations', Huntington (1996: 252) writes, 'have been prevalent in every era and in every civilization because they are rooted in the identities of people.' The Cold War, though, poses an exception to this pattern: ideology, not identity, was the key factor informing power politics in that period. Civilizational factors were trumped in the confrontation between liberal democracy and communism. Even conflicts occurring across different civilizations were usually viewed through the prism of the Cold War (Huntington, 1996: 255). If these dynamics were at work, we should be able to observe that intercivilizational dyads that belonged to the same Cold War bloc should have set aside their cultural and religious differences and managed to keep peaceful relations, while countries sharing the same civilizational membership should have been brought into conflictual interactions by their contrasting ideological allegiances. Thus,

*H3:* The Cold War bipolar confrontation dampened the propensity of conflict involvement for the intercivilization dyads that belonged to the same ideological bloc, and increased it for the same-civilization dyads that belonged to different blocs.

These basic hypotheses, however, should be complemented in several ways. A core aspect of the CofC argument is that

intercivilizational dynamics might interact with other variables and affect the probability of conflict involvement indirectly. Three factors play a central role in Huntington's (1996) framework, namely border contiguity, regime type, and modernization.

### *Intercivilizational Dyads and Border Contiguity*

Territorial contiguity is usually a strong predictor of conflict (Bremer, 1992). The closeness of interactions is likely to offer both the opportunity and the willingness to engage in conflict. The issue at stake is usually some piece of territory with high symbolic value for both countries. This situation exacerbates potential clashes of interests and often leads to fault-line conflicts, the specific form of conflictual relations between civilizations (Huntington, 1996: 252–253). In addition, the presence of minority groups that share civilizational identities with the population of bordering countries might offer strong incentives for the initiation of militarized disputes. In forceful words, Huntington (1996: 252) draws attention to the appalling violence of conflicts whose goal is 'to conquer territory and free it of other people by expelling them, killing them, or doing both, that is, by "ethnic cleansing".' Yet, the sheer brutality that characterizes these conflicts should not obscure the fact that they are not by any means ubiquitous (Fearon & Laitin, 1996).

Indeed, this hypothesis has received mixed support in previous research. Huth's (1996: 80–85) findings show that irredentist claims and support of the right to self-determination for ethnic and linguistic minorities are not strong predictors for the initiation of territorial disputes. However, they have a substantial impact on the likelihood of escalation in conflict levels and on the emergence of an enduring rivalry over disputed territory. The reason suggested is that countervailing factors – such as the

presence of international norms that support the right to self-determination only when it does not question the territorial integrity of sovereign states – might dampen the probability of low-level disputes. In other words, only deeply committed leaders with strong domestic support are willing to act upon irredentist claims and initiate military confrontation over territory. As a consequence, if these conflicts erupt, they are likely to be more violent and persist over time (Huth, 1996: 100–111; Huth, 1999: 55–56).

While bringing into effect important qualifications to Huntington's argument, these tests do not address directly its central aspects. Huth's (1996: 256–257) explanatory variable measures linguistic and ethnic commonality between people living within disputed territory, or along the border, and people living in the challenger country. Yet, while ethnic and linguistic characteristics are tightly tied with civilization identities, they do not include religion, which is, as Huntington (1996: 253) maintains, 'the defining characteristic of civilization'.

The interaction between territorial contiguity and civilizational membership is also of central importance given the fact that neighboring states are usually more likely to belong to the same civilization. Strategic location and the economic value of contiguous territory are often sources of clashing interests, no matter what the civilizational status of the conflicting parties is. That is,

*H4:* Sharing a land border is positively associated with conflict involvement.

*H5:* The effect of sharing a border on the likelihood of conflict involvement is magnified for intercivilization dyads.

### *Intercivilizational Dyads and Domestic Regime Type*

As Levy (1988: 662) suggested in a prescient article, 'The absence of war between democracies comes as close as anything we

have to an empirical law in international relations' (Russett, 1993; Ray, 1995). The character of the democratic peace proposition has approached that of a time-invariant, universally valid, empirical generalization. But while the temporal dimension of this proposition has been subjected to some criticism (Farber & Gowa, 1995; for a response, see Gochman, 1996/97; Thompson & Tucker, 1997), its geographical component has remained virtually unchallenged.<sup>5</sup>

The question is how far free government can travel in time and space and whether the democratic peace can take root in different cultural domains (Sartori, 1995). Insofar as liberal norms of regulated political competition and of mutual respect for adversaries constitute the causal mechanisms that drive the democratic peace (Maoz & Russett, 1993; Owen, 1994; Dixon, 1994), then the mere presence of electoral institutions is not sufficient to guarantee the emergence of peace. Not only should democracy consolidate and become 'the only game in town', but widespread consensus about liberal values and norms should form among elites and the general public as well.

That these conditions hold – at least for now – for most of the countries that experienced a democratic transition in the Third Wave of democratization is, however, questionable. Zakaria (1997) has drawn attention to the rise of illiberal democracy, a regime type in which electoral politics is separated from constitutional liberalism. As he argues, the rule of law, the separation of powers, and respect for the basic civil liberties are not a part of the political realities of many countries with elective leaders.

Similarly, the proliferation of adjectives used to qualify democratic rule in several post-authoritarian regimes shows that

<sup>5</sup> Henderson (1997, 1998) offers a first attempt to tackle this question.

area-study investigators often have a less sanguine assessment of the nature of democratic politics in those countries. Democracy is not yet accomplished if it is defined as delegative, protected, electoral, or military-dominated (Collier & Levitsky, 1997). The discrepancy between political rights and civil liberties in the Freedom House indicators is yet another sign of the fact that as democracy expands in the world, its liberal basis often lags behind (Diamond, 1996). A cogent example of these contradictions is offered by Iran, probably the Middle-Eastern country with the liveliest parliament after Israel's, but hardly yet a liberal democracy (Huntington, 1997: 9).

The implications for the democratic peace cannot be neglected. If – as Russett (1993: 35) argues – decisionmakers try to follow the same norms of conflict resolution that characterize domestic political processes and expect their foreign counterparts to do likewise, then all the qualifiers and limitations that accompany most non-Western democracies bode ill for the emergence of peace even among elective governments. What parties to a dispute might infer from the systematic infringement of basic liberties, the persecution of minorities, the suppression of dissent is that violence is still a viable foreign-policy tool, no matter how competitive elections might be. Under these conditions, conflict remains a possible outcome, either as a deliberate gamble from an illiberal state or as a pre-emptive move from a liberal country that tries to avoid being exploited.

Moreover, as free institutions and electoral politics expand in non-Western countries, anti-Western elites are given a chance to ascend to power. Their electoral platforms deliberately blame any current shortcomings on pro-Western elites that had been in power in the 1960s and 1970s. Nativism and nationalism have often become the electoral banners of the ambitious politician in such countries. As Huntington (1996: 94) argues, 'democracy is inherently a parochializing not

a cosmopolitanizing process'. The existence of religious, ethnic, or linguistic cleavages – and the formation of political parties along those lines – leads to a factionalization of competitive politics, narrows the space for the democratic compromise, and dampens the chances of democratic consolidation.

The external consequence of these dynamics is that democracy makes the juxtaposition between countries that do not share a common cultural heritage even more salient, as leaders become committed to nationalist policy positions and fear electoral retribution if they do not live up to them. The CofC thesis thus challenges the universal character of the democratic peace and limits its validity to the Atlantic security community that has emerged in the post-WWII world. That is,

*H6:* The greater the democratic character of the regimes in a dyad, the smaller the probability of involvement in international conflict.

*H7:* Democratic institutions foster conflict involvement among countries that belong to different civilizations.

### *Modernization and the Clash of Civilizations*

A third factor that might interact with civilization status is socio-economic modernization. In Huntington's vision, we would be quite misled if we thought that modernization fostered conditions for peace through a process of homogenization of values, norms, and identities. Difference, and not similarity, is the consequence of the spread of modernization over the civilizational divide. A key indicator of these dynamics is '*la revanche de Dieu*', the global religious revival that has characterized the second half of the twentieth century, and the concomitant resurgence of indigenous identities among the rising elites of modernizing societies (Huntington, 1996: 95–101).

This process unfolds both at the

individual and at the societal level (Huntington, 1996: 76). At the individual level, modernization disrupts the old social order, causes alienation and dislocation, and, in so doing, creates the need for new identities. The sources of these identities are to be found not in the accomplishments in the market place, but in those common features that people inherit from their birth and that cannot be disrupted by the dynamics of modernization. Religion, ethnicity, and culture – the basic components of civilization – therefore acquire new prominence and affect the patterns of association and political life. Far from fostering an ineluctable trend towards the adoption of Western values, institutions and practices, modernization engenders a cultural and religious resurgence that exacerbates differences across the civilizational divide.

These individual-level processes become all the more relevant insofar as modernization increases the economic, military, and political power of a country. As Huntington (1996: 78) writes, 'Modernization strengthens those [non-Western] cultures, and reduces the relative power of the West.' As a consequence, these countries are likely to find the existing hierarchy of prestige, allocation of resources, and territorial distribution in contradiction with emergent power realities. 'The revival of non-Western religions', Huntington (1996: 101) suggests, 'is the most powerful manifestation of anti-Westernism in non-Western societies. . . . It is a declaration of cultural independence from the West.'

The combination of these two dynamics has major implications for the patterns of conflict: contrary to the liberal tenets on modernization and war (Morse, 1970), the CofC argument predicts that modernization should lead to greater bellicosity in interstate relations in intercivilizational dyads. Increased capabilities and keener civilizational awareness make conflicts of interests more, and not less,

intractable. The liberal idea that modernization generates a pattern of interdependence among countries, in which the use of force becomes inconceivable (Morse, 1970; Oneal & Russett, 1997), is likely to be nullified in intercivilization relations, because the levels of economic and social integration remain shallower than is the case in countries of the same civilization. In these circumstances, modern intercivilizational dyads are less likely to be able to solve their controversies in peaceful manners. Thus,

*H8:* There is a negative relationship between modernization and probability of conflict involvement for same-civilization dyads.

*H9:* Modernization fosters conflict involvement among countries that belong to different civilizations.

### ***Control Variables***

Three control variables are included that are likely to be correlated with the main explanatory variables. The balance of military forces affects political leaders' decisionmaking calculus, tilting the odds of the use of force. Following the power preponderance tradition (Organski & Kugler, 1980), this factor might be expected to be negatively associated with dispute involvement. The second control variable is the presence of major powers in interstate interactions. The expectation is that major power status is positively associated with dispute involvement. Finally, we might expect that the probability of conflict should be inversely related to the distance between the countries in a dyad. All three control variables are likely to be correlated with civilizational membership as most Western countries are also major powers, and are also endowed with preponderant military capabilities. Moreover, countries of different civilization are more likely to be located at greater distances. Thus,

*H10:* Conflict is more likely to erupt when the ratio of military capabilities is balanced.

*H11:* Major powers are more likely to get involved in conflict.

*H12:* Distance between countries is inversely associated with conflict involvement.

## Research Design

To test these hypotheses, a dataset was constructed in which the unit of analysis is the dyad-year: each observation represents a pair of countries in a given year. The temporal domain under investigation is the period from 1946 through 1997. This dataset contains about 400,000 observations. Only 3,142 (.79%), however, are engaged in an international dispute.

Most of these dyads comprise states that are either too weak or too far apart to have any meaningful international relationship, which swamps dispute interactions in a large number of non-events. This raises two sets of problems. First, the quality of the data is likely to be rather poor as investigators trade off precision in measurement with spatial and temporal breadth. Second, standard statistical techniques, such as logit or probit, generate biased coefficients when applied to finite samples of rare events, systematically underestimating the probability of the phenomena under investigation.

A new estimator, however, has recently been made available that addresses and solves these problems (King & Zeng, 2001a,b). This estimator allows for a selection of all the conflict observations along with a random sample of non-event interactions. At the same time, it corrects the biases in logit estimation of rare events. In this way, investigators can study smaller samples, improve the quality of their data, and build more informative models.

King & Zeng's (2001a,b) method constitutes

an innovative approach in quantitative studies of international conflict. The traditional approach has so far been that of reducing sample size to manageable proportions by selecting observations on the basis of values of the independent variables. Maoz & Russett (1993), in particular, introduced the concept of 'politically relevant dyads' – pairs of countries that either contain a major power or are contiguous by land – as a viable way to come to terms with the problem of the proliferation of observations. This selection mechanism is indeed reasonable, because conflict is usually a matter for major powers and contiguous countries. But sometimes it is not, and the historical record contains instances in which odd pairs – non-contiguous minor powers – fought each other. Cases in point would include Iraq–Israel, Turkey–Cyprus, and South Africa–Angola – politically meaningful dyads in many respects, despite the lack of a shared border and major power status. Therefore, while allowing for correct inferences, sampling on values of the independent variables fails to account for some conflict events and limits the generalizability of the results.

The dataset for this study was prepared in two steps. First, a dataset was created that contained the population of all dyad-years for all the countries listed in the Polity IV (2000) dataset. These observations were coded with a dummy variable denoting the presence/absence of international conflict in a given year. Next, the conflict observations were combined with a random sample of the zero observations. The number of non-event observations selected is 10% of those existing in the entire population (King & Zeng, 2001b: 707).<sup>6</sup>

<sup>6</sup> Particular care was taken in trying to minimize the number of missing data points. Once the data sample was taken, an extensive search was conducted to collect the additional information required to integrate the missing data. While it is always potentially true that there are data 'out there' for all countries and all years, working with a sample about 10% the size of the whole population made this task more manageable and less daunting.

Two options are available to correct for the bias introduced by subsampling the zero cases: prior correction and weighting. While both perform in practically identical ways in the Monte Carlo simulations run by King & Zeng (2001a), weighting seems to be superior when the odds of model misspecification are high and efficiency is not a concern. In line with King & Zeng's advice (2001a: 145), this study opted for weighting, because this approach is more robust against model misspecification. Huber/White standard errors are also estimated, as is required with the weighting option (King & Zeng, 2001a: 154), while also clustering observations by dyad, as Beck & Tucker (1997: 11) suggest.

A second feature of the current research design is the use of interaction effects in a regression model with a dichotomous dependent variable. This modeling strategy allows for the testing of the differential impact that geographic contiguity, regime type, modernization, and the Cold War and post-Cold War periods have had in same-civilization and intercivilization dyads, as posited in hypotheses H2 through H9.

The functional form of non-linear models, such as logit and probit, assumes that the effect of each predictor on the probability of an event is dependent upon the values of the remaining explanatory variables (Long, 1997). These interactive effects by default, however, are not sufficient to test substantive hypotheses on the conditional effects of a set of variables (Nagler, 1994: 252). Therefore, should we posit that a variable  $X_1$  has a conditional impact on the dependent variable depending upon another predictor  $X_2$ , then this relationship should be explicitly modeled including a term equal to the product of  $X_1$  and  $X_2$  in the statistical specification (Friedrich, 1982; Gill, 2001).

This has a major implication for the interpretation of the regression coefficients: once interaction terms are introduced in a

regression specification, coefficients no longer represent the general impact of one variable on the dependent variable, all else being equal, but yield estimates that are conditional on the values of the interacting variable – the civilization indicator in this case. More precisely, 'if a variable interacts with others in the model specification, then the main effect coefficient is just the contribution of that variable assuming that all of the other interacting variable coefficients equal zero' (Gill, 2001: 13). Interaction term coefficients, on the other hand, estimate the changes in the regression coefficients associated with a shift from same-civilization to different-civilization. This shift might either depress or magnify the baseline effect of a variable depending upon the sign of the interaction term coefficient (Gill, 2001).<sup>7</sup>

Finally, this study controls for the effects of the duration of the spells of peace using Beck, Katz & Tucker's (1998) procedure. The basic intuition underlying their approach is that time-series cross-section data with binary dependent variables are identical to duration data. Temporal dependence is, then, detected by measuring how likely an event, in this case peace, is to terminate at a particular time, given that it reached that time.

## Data and Measurement

**Dependent variable** The presence/absence of conflict between a pair of countries in a given year is the dependent variable for this study. Ongoing confrontations are also included in the dataset, consistently with the coding procedure advocated by Maoz & Russett (1993). The number of conflict

<sup>7</sup> This basic rationale can also be extended to the interpretation of the standard errors. If we want to assess the variability of a coefficient for different-civilization dyads, we should add up the relevant standard errors, using the rules of covariance algebra (Friedrich, 1982: 810, 828–829; Gill, 2001: 14).

dyad-years is 3,142 in a sample of 42,844 observations.<sup>8</sup>

This variable was coded using the set of interstate conflicts listed in the Kosimo dataset (Pfetsch & Rohloff, 2000). This dataset defines conflict 'as the clashing of overlapping interests (positional differences) around national values and issues (independence, self-determination, borders and territory, access to or distribution of domestic or international power); the conflict has to be of some duration and magnitude of at least two parties (states, groups of states, organizations or organized groups) that are determined to pursue their interests and win their case' (Kosimo online manual, [www.kosimo.de](http://www.kosimo.de)).

The Kosimo dataset distinguishes among four levels of conflict intensity: war, violent crisis, nonviolent crisis, and latent crisis. While the first three categories identify patterns of conflict that are analogous to those usually covered in the MID (Jones, Bremer & Singer, 1996) and the ICB (Brecher & Wilkenfeld, 1997) datasets, the category 'latent crisis' broadens the empirical realm under investigation to sets of interactions in which 'groups, parties, or states question existing values, issues or objectives that pertain to an issue of national interest' (Pfetsch & Rohloff, 2000: 386–387). Confrontations of this kind remain completely nonviolent. Examples of latent crises are the UK–Argentina interactions over the Falklands/Malvinas islands before and after the 1982 war, the US–Cuba relations since the crisis of 1962, and the territorial dispute between Spain and Britain over Gibraltar from 1964. The dependent variable was coded as 1 whenever a conflict of any intensity occurred. The Kosimo dataset also distinguishes between direct and external participants, and state and non-state actors. External participants

and non-state actors and are not considered in this study.<sup>9</sup>

Two advantages can be obtained from using the Kosimo data: first, the empirical analysis covers a much larger portion of the post-Cold War period. Second, by including latent crises, 'Kosimo traces the nonviolent roots of violent conflicts and checks whether the end of fighting was indeed the end of the conflict' (Kosimo online manual, [www.kosimo.de](http://www.kosimo.de)). If what characterizes inter-civilizational interactions is the lingering sense of an ongoing crisis and the difficulty of finding a definitive solution to the conflict, then the set of events included in the Kosimo data captures this dimension of the CofC thesis. Therefore, both from a temporal and from a substantive point of view, this study takes up Huntington's (2000) rejoinder to Russett, Oneal & Cox (2000) and engages it in a confrontation against the empirical record.<sup>10</sup>

**Intercivilization dyad** This is a dummy variable, and is equal to 1 for all the dyads that contain states belonging to different civilizations, and equal to 0 when the dyad comprises states in the same civilization.

One of the major challenges of any study that attempts to shed empirical light on the CofC thesis is to elaborate an operational definition of civilization. As several reviewers have pointed out, Huntington's conceptualization and selection of civilizations is one of the most controversial elements of his argument (Jervis, 1997; Buzan, 1997). Katzenstein (1996: 533) makes this point succinctly: 'Although they are real, the defining characteristics of civilizations (history, language, culture, tradition, religion) cannot be grasped easily.' As a matter of fact, Huntington himself is sometimes ambivalent

<sup>8</sup> A total of 383 observations are dropped from the analysis because of missing values. Four of these observations are conflicts.

<sup>9</sup> This study excludes external participants because, while these actors have influence on the course of the conflict, 'the external party has to refrain from direct participation in the conflict e.g. involvement in combat' (Kosimo online manual, [www.kosimo.de](http://www.kosimo.de)).

<sup>10</sup> For further discussion, see web appendix.

about the civilizational status of certain countries. The main difficulty is that the factors Huntington mentions in his own definition – religion, ethnicity, common history and institutions – can yield contradictory country-dyad civilizational codings. The Iran–Iraq war, for example, is an intra-civilization war in Huntington's terms. However, Iranians and Iraqis belong to different ethnic groups and speak different languages. One might wonder whether they identify themselves as members of an encompassing Islamic civilization. They are, after all, members of two different subcivilizations, Arab and Persian, within the main Islamic civilization (Huntington, 1996: 45; Welch, 1997: 202–203).

Moreover, given the emphasis on the state as the key player in the world arena, a civilization needs to be attributed to entities that allegedly comprise groups of different cultural heritage. Huntington (1996: 128) glosses over this problem when he claims that 'narrower identities . . . do not necessarily conflict with broader ones . . . a person can identify culturally with his or her clan, ethnic group, nationality, religion, or civilization'.

But, despite all the ambiguities that surround the concept of civilization, Huntington (1996: 26–27) meets the challenge by providing a map that groups countries on the basis of their civilization. This study relies upon Huntington's map, and the classification list that Henderson & Tucker (1999, 2001) have elaborated from that map. Nine civilizations are thereby identified: (1) African; (2) Buddhist; (3) Hindu; (4) Islamic; (5) Japanese; (6) Latin American; (7) Orthodox; (8) Sinic; (9) Western. Henderson & Tucker (1999, 2001) have created a residual category for a few countries that are not clearly placed in any of these categories. These are mostly 'cleft countries', that is, countries where large portions of the population belong to different civilizations: the Philippines, Nigeria, and Kenya are the most

prominent examples of this condition. Israel is also coded in the residual category given the fact that Huntington (1996: 48) never explicitly defines Judaism as a civilization. In many respects, this might appear as a rough classification of the key explanatory concept, but it has the advantage of testing the CofC argument on its own terms.<sup>11</sup>

**Post-Cold War period** This is a dummy variable that is coded as 1 for all the years after 1989, and 0 otherwise.

**Different Cold War bloc** This is a dummy variable that is coded as 1 for all the dyads that contain countries that were members of different Cold War blocs, and 0 otherwise. Post-Cold War dyad-years are also coded as 0. Consistent with Huntington's (1996: 24–25) Cold War map, three blocs are distinguished: the Free World, the Communist, and the Non-Aligned.

**Border** This is a dummy variable that is coded as 1 when two countries share a common border, and 0 otherwise. Data are taken from the COW contiguity dataset from Bennett & Stam's (2001) EUGene program.<sup>12</sup>

**Regime type** This variable is measured using the 21-point indicator from the Polity IV (2000) dataset. To ease interpretation, it was rescaled from 0 to 20. The democratic character of a dyad is then measured by the lesser of the two countries' scores on the regime type variable. The rationale of this coding rule – the weak-link assumption – is

<sup>11</sup> The civilization indicator takes on the value of 1 whenever the civilization of both countries in a dyad is coded in Henderson & Tucker's (1999, 2001) residual category. The analysis was replicated using Russett, Oneal & Cox's (2000) classification of civilizations. The results remain unchanged. See web appendix.

<sup>12</sup> The dyad-years after 1993, when the COW contiguity data ends, were coded using the value the dyad had in 1993.

that the character of interstate interactions is mostly determined by the country that has fewer domestic constraints (Oneal & Russett, 1997).

Countries that are undergoing political transformations are given a score of +10, the mid-point on the scale. That is, polities in transition are given the benefit of the doubt by decisionmakers. Polities that are either experiencing a period of interregnum or interruption, on the other hand, are given a score of 0, as if they were perfect autocracies. The rationale is that the presence of countries in these conditions affects the whole character of the dyad: decisionmakers are unlikely to grant any concession or to expect any overture. In other words, they are likely to assume the worst and behave accordingly.

**Modernization** Modernization is a multi-faceted concept encompassing social, economic, and political dimensions that cannot be captured adequately with single-indicator variables (for an overview, see Przeworski & Limongi, 1997; Lipset, 1994). Therefore, in order to have a more comprehensive measure, a factor analysis model was estimated using four different indicators: the log of energy consumption per capita, the percentage of the total population living in cities, the percentage of students enrolled in primary schools, and the number of radio receivers per 10,000 inhabitants. All these four indicators capture important dimensions of modernization, namely economic activity, urbanization, education, and the degree of exposure to the mass media. The expectation is that a modern society should score high on all those dimensions.

The results of the factor analysis model are then used to estimate factor scales, that is, estimates of the latent modernization construct for each observation. From this, an operational measure of modernization was derived that varies from -2.024 to 3.688. To ease interpretation, this variable was rescaled

so that its minimum is equal to 0 and its maximum is equal to 1. The level of modernization in a dyad is again measured using the weak-link assumption.<sup>13</sup>

Data on the four indicator variables were taken from several sources: the COW capability dataset from Bennett & Stam (2001), the OECD *Statistical Compendium CD-ROM*, the World Bank *2000 World Development Indicators CD-ROM*, Mitchell's (1998a,b,c) *International Historical Statistics*, Banks's (1976) *Cross-National Time-Series*, and various issues of the United Nations *Energy Statistical Yearbook*, the United Nations *Demographic Yearbook*, the United Nations *Statistical Yearbook*, and the Unesco *Statistical Yearbook*.<sup>14</sup>

**Balance of military forces** This variable was coded using a procedure developed by Gelpi (1999: 126). There are three indicators for state military capabilities: (a) number of troops, (b) military expenditures, (c) military expenditures per soldier. For each country and each year, these three indicators were standardized using its respective global total. These percentages were discounted using Bueno de Mesquita's (1981: 105) power projection discount factor.<sup>15</sup> For each of the three indicators, the ratio of state A's capabilities over the sum of the capabilities of both countries in the dyad was computed. Then, the average of the three resulting elements was taken. Finally, .50 was subtracted from the average value and the absolute value of this difference was generated. This procedure creates a variable

<sup>13</sup> Dyads with missing values on either country were treated as if the unique value available were the minimum. This affected 14 observations.

<sup>14</sup> A more detailed discussion of the measurement of the modernization variable can be found in the web appendix. Several robustness checks on the results reported in Table I were performed using alternative specifications of the modernization variable. Results remain substantively unchanged. See web appendix.

<sup>15</sup> This computation was performed for each dyad-year. Only contiguous pairs of countries were excluded.

with values between 0 and .5: a score of 0 on this indicator reflects a balance of military forces, while a score of .5 means that either one or the other state enjoys complete military superiority. In other words, the greater the score, the larger the military power preponderance of one of the countries in the dyad.

Data were taken from the COW capability dataset from Bennett & Stam (2001). Missing values were integrated whenever possible using various issues of *World Military Expenditures and Arms Transfers* from the US Arms Control and Disarmament Agency.

**Major power** This is a dummy variable that is coded as 1 if a dyad contains at least a major power (as defined in the COW project), and 0 otherwise. Data are taken from Bennett & Stam's (2001) EUGene program.

**Distance** This variable measures the log of the number of miles between the capital cities of the countries in a dyad. Data are taken from Bennett & Stam's (2001) EUGene program.<sup>16</sup>

**Interaction terms** To test hypotheses H2, H3, H5, H7, and H9, the interciviliation dummy was interacted with (a) the post-Cold War dummy; (b) the Cold War bloc dummy; (c) border; (d) regime type; and (e) modernization.

**Peace years** This variable counts the number of years that have elapsed since the last international crisis between two countries. Given the fact that there is no *a priori* theoretical reason for expecting a linear impact of time on the probability of conflict, the co-efficients for a natural cubic spline

with three knots were included (Beck, Katz, & Tucker, 1998: 1270; Tucker, 1999).

## Data Analysis

Table I presents the estimates of two models: Model 1 is the baseline model which serves as a benchmark for comparison, while Model 2 presents the specification with the interaction effects which directly tests the hypotheses elaborated above.<sup>17</sup>

The first thing that might be noted about Model 1 is that the coefficient for the interciviliation variable is negative: contrary to H1, the civilizational status of a dyad does not increase the likelihood of international conflict, but it even seems to reduce it. This finding undermines the main thrust of Huntington's argument: international conflict is not a pervasive feature of all interactions across the civilizational divide. Quite the contrary, international conflict is associated with the close connections and interactions that occur between countries belonging to the same civilization.

The coefficient on the post-Cold War dummy variable is negative and statistically significant. This shows that, in general, the years since the end of the Cold War have witnessed a decrease in the likelihood of interstate conflict. With the exception of modernization, the remaining variables included in Model 1 behave as expected: membership in different Cold War ideological blocs and border contiguity are associated with an increase in the probability of international conflict, while higher levels of democracy induce a reduction in the chance of conflict. The coefficient on the modernization variable, on the other hand, is positive and significant: modern countries are more likely to be involved in international conflict, which contradicts the liberal case posited in

<sup>16</sup> The dyad-years after 1993, for which no data were available from Bennett & Stam's (2001) EUGene, were coded using the value the dyad had in 1993.

<sup>17</sup> Models estimated using the prior correction option, instead of weighting, yield similar results. See web appendix.

Table I. Rare Events Logit Analysis Predicting Involvement in International Conflict

Variables	Model 1			Model 2		
	<i>b</i>	<i>se(b)</i>	<i>p-value</i>	<i>b</i>	<i>se(b)</i>	<i>p-value</i>
Intercivilization dyad	-0.643	0.267	0.016	-2.203	0.640	0.001
Post-Cold War period	-0.853	0.261	0.001	-0.874	0.378	0.021
Different Cold War bloc	0.805	0.209	0.000	0.428	0.351	0.223
Border	2.800	0.313	0.000	2.325	0.351	0.000
Regime type	-0.056	0.016	0.000	-0.103	0.023	0.000
Modernization	4.703	0.928	0.000	4.667	1.557	0.003
<i>Interaction effects with intercivilization dyad</i>						
Post-Cold War period	-	-	-	0.070	0.516	0.892
Different Cold War bloc	-	-	-	0.738	0.434	0.089
Border	-	-	-	1.160	0.469	0.013
Regime type	-	-	-	0.094	0.029	0.001
Modernization	-	-	-	0.765	1.854	0.680
<i>Temporal dependence</i>						
Peace years	-1.741	0.094	0.000	-1.743	0.095	0.000
Spline(1)	-0.017	0.001	0.000	-0.017	0.001	0.000
Spline(2)	0.012	0.001	0.000	0.012	0.001	0.000
Spline(3)	-0.004	0.0004	0.000	-0.004	0.0004	0.000
<i>Control variables</i>						
Balance of military forces	-1.498	0.595	0.012	-1.625	0.583	0.005
Major power	2.679	0.225	0.000	2.690	0.231	0.000
Distance	-0.310	0.130	0.017	-0.258	0.132	0.050
Constant	-0.963	1.064	0.365	-0.612	1.123	0.586
Number of observations	42,461			42,461		

Parameters estimated using King & Zeng's (2001a,b) Relogit program. Weighting option used with robust standard errors and clustering by dyad. All tests are two-tailed.

hypothesis H8. All the parameters for temporal dependence turn out to be statistically significant as well. From a substantive point of view, the coefficients on the four variables addressing temporal dependence imply that, as the years since the previous conflictual confrontation go by, the probability of conflict decreases. The results on the three control variables are consistent with the expectations elaborated in hypotheses H10, H11, and H12: countries that are unequal in military power and countries separated by large distances are less prone to conflict involvement, while the opposite is true for dyads that contain at least one major power.

A more comprehensive assessment of the CofC thesis can be obtained from Model 2. The coefficient on the intercivilization dummy variable continues to be negative and significant. But we can also notice that the temporal pattern of intercivilizational conflict depicted in the CofC thesis is not borne out in the empirical realm. The coefficient on the interaction between the post-Cold War and the intercivilization dummy indicators is positive, but of no substantive size and statistically undistinguishable from zero. If we combine the main effect and the interaction effect coefficients, we obtain a parameter equal to  $-0.804$  ( $se(b)$

= .357,  $p$ -value < .026). That is, both for different and same-civilization dyads the transition to the post-Cold War period is associated with a reduction in the likelihood of conflict. The first eight years of the post-Cold War period, therefore, reveal a pattern of state interactions that is at odds with CofC hypothesis H2.

The coefficient on the different-Cold War bloc variable is positive, but statistically insignificant, while the interaction term between the different-Cold War bloc and the intercivilization dummy indicators is also positive, and significant at the .09 level in a two-tailed test. This means that, for the states of different civilization, being on opposing ideological sides entailed greater chances of conflict during the Cold War. This is hardly surprising if we think that the principal rivalry of the Cold War – the US–USSR dyad – is of that kind.

Turning to the other explanatory variables in Model 2, we observe that sharing a land border again turns out to be a strong predictor of conflict. Territorial contiguity is associated with an increased propensity for conflictual interactions among states, as hypothesis H4 posits. Different civilizational status in a dyad magnifies this effect: the coefficient associated with the interaction term between the intercivilization dummy and border contiguity is positive and statistically significant.

This finding is indeed consistent with the CofC argument, but it is not by itself sufficient to establish that bordering intercivilization dyads are more conflictual in all circumstances. A cursory analysis of the results in Model 2 shows that the sum of all the relevant coefficients – that for intercivilization dyad, that for border, and their interaction term – is about 1.282, a number smaller than that of the estimated effect for bordering countries from the same civilization. To clarify the interactive effects of civilizational status, Table II presents the

estimates of the predicted probabilities of international conflict under different configurations of the explanatory variables (Gill, 2001: 13).<sup>18</sup>

The focus in Table II is on the temporal pattern of conflict involvement for same- and different-civilization dyads, and on border contiguity, while setting the level of regime type at 10 – the mid-point on the regime type scale – and the level of modernization at its mean value. In other words, Table II identifies a set of scenarios and presents the counterfactual estimates of the probability of conflict involvement based upon the coefficients of Model 2.

Hypothesis H1 predicts that different-civilization dyads should be more conflict prone no matter what the values of the other variables might be. But that is only the case when countries shared a border. And even in that case, there is only one scenario in which the impact is substantial, that is, when the countries in the dyad belonged to opposing ideological blocs during the Cold War. Otherwise, state interactions across civilizations were either more peaceful or as conflict prone as they were within civilizations. It is worth noting that this result also obtains in the first eight years of the post-Cold War period: the probability of conflict for different-civilization dyads was practically zero when countries did not have a land border in common, and just slightly higher when they shared a border, a major contradiction for Huntington's (1996) thesis.

During the Cold War, countries of different civilization but on the same side of the ideological divide were less likely to fight each other than countries of same civilization but different ideology: as Table II shows, these probabilities were equal, respectively, to .117% and .502% when there were no common borders, and to 3.685% and

<sup>18</sup> These values, as well as those reported in Figure 1 and Figure 2, were computed using King & Zeng's (2001a) method to account for estimate uncertainty.

Table II. Probabilities of Conflict Involvement (%)

		COLD WAR				
		SAME BLOC	DIFF. BLOC	POST-CW		
C I V I L I Z A T I O N	DIFFERENT	0,117	0,375	0,053	B O R D E R	
	SAME	0,326	0,502	0,134		
		COLD WAR				NO
		COLD WAR				YES
		COLD WAR				
		SAME BLOC	DIFF. BLOC	POST-CW		
C I V I L I Z A T I O N	DIFFERENT	3,685	10,810	1,675	B O R D E R	
	SAME	3,302	4,891	1,422		
		COLD WAR				NO
		COLD WAR				YES

Other variables were set as follows:

- |                                      |                     |
|--------------------------------------|---------------------|
| (1) regime type: 10                  | (4) major power: 1  |
| (2) modernization: mean              | (5) distance: mean  |
| (3) balance of military forces: mean | (6) peace years: 18 |
- Values computed using King & Zeng's (2001a,b) Relogit program.

4.891% when there were common borders. This result implies that, during the Cold War, ideological differences were much more salient in generating conflict than civilizational ones. Moreover, Table II shows that for countries that had common borders, a hypothetical shift from same-civilization to different-civilization was associated with a 5.92% increase in the probability of conflict when countries were ideological opponents, but with a meager .38% increase when they were in the same Cold War bloc.

This pattern is indeed consistent with the expectation of CofC hypothesis H3. But, when we shift our attention to the countries

that do not share a border, a different picture emerges: countries of different civilization were less likely to be embroiled in conflict irrespective of their Cold War allegiances. What underlies this result is the general reduced likelihood of conflict among different civilization dyads rather than any constraining effect of the Cold War. Therefore, the analysis of the estimated probabilities under different alternative scenarios shows only partial support for the general dynamics Huntington (1996) posits with respect to the Cold War and intercivilizational conflict.

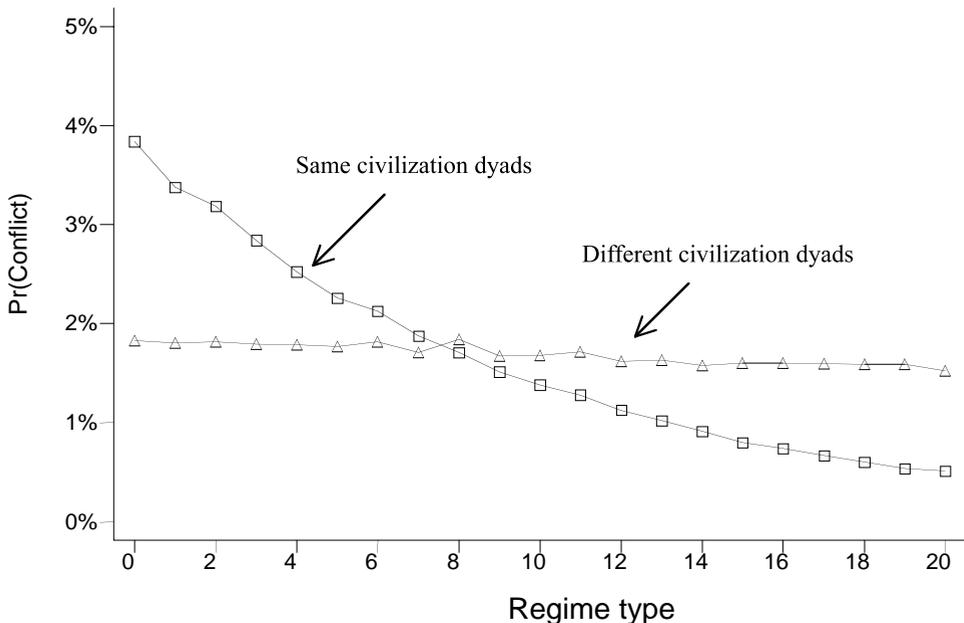
Turning to the coefficients for the regime-type variables, we see that democracy

dampens the probability of crisis involvement for countries that share the same civilizational heritage. This effect, however, is attenuated when countries in a dyad belong to different civilizations: the interaction term between regime type and the intercivilization dummy variable is positive and significant, as hypothesis H7 posits. The linear combination of the main effect and the interaction effect coefficients on the regime type variable yields a parameter that, while still negative, is of much smaller magnitude, and statistically insignificant ( $b = -.010$ ,  $se(b) = .018$ ,  $p$ -value  $< .598$ ).

It would seem that democracy no longer exerts its restraining effects on the chances of conflict involvement when the countries do not share the same civilizational status,

contrary to the vast literature on the democratic peace (Russett, 1993; Ray, 1995). But this finding should be interpreted in combination with the general result that intercivilization dyads are less conflict prone. As Figure 1 clarifies, the probability of conflict involvement for countries of different civilization remains practically constant as the democratic character of a dyad increases. For same-civilization dyads, however, regime type makes a large difference: as the democracy scores increase, the probability of conflict drops rather quickly. Nonetheless, the baseline probability of conflict for countries of different civilization is much lower to begin with. The effects of regime type on the patterns of interstate behavior in the international arena are of much lower magnitude

Figure 1. Regime Type and Conflict Involvement across Civilizations



Other variables were set as follows:

- |                                |                                      |
|--------------------------------|--------------------------------------|
| (1) post-Cold War: 1           | (5) balance of military forces: mean |
| (2) different Cold War bloc: 0 | (6) major power: 1                   |
| (3) border: 1                  | (7) distance: mean                   |
| (4) modernization: mean        | (8) peace years: 18                  |

Range of variation of regime type: 5th percentile = 0; 95th percentile = 19

Values computed using King & Zeng's (2001a,b) Relogit program.

for countries of different civilization not because there is anything pathological about democracy in non-Western civilizations, but because countries of different civilization are generally less likely to be embroiled in international confrontations.

The final factor considered in Huntington's (1996) framework is modernization. Model 2 replicates the result found in Model 1 with respect to modernization: dyads that comprise modern countries experience higher risks of conflict involvement. This is true among both same-civilization and different-civilization pairs of states: the coefficient on the interaction term between modernization and intercivilization dummy is positive, as hypothesis H9 expects, but far from any acceptable level of statistical significance. No matter what the civilizational status of a dyad might be, as countries develop economically and socially, they become more likely to get involved in conflictual relations in the international arena. The impact of the modernization variable emerges from Figure 2, where the probability of conflict involvement for same- and different-civilization dyads is plotted as a function of modernization. The two curves identifying same- and different-civilization dyads are practically undistinguishable as the modernization index moves from its 5th percentile to its 95th.<sup>19</sup>

Finally, hypotheses H10, H11, and H12 continue to be supported in Model 2: consistently with power preponderance theory, imbalances of military capabilities reduce the probability of conflict involvement, while major power status is a strong predictor of conflict. Greater distances between countries

reduce the likelihood of conflictual interactions.

### *Specification Checks*

The findings discussed so far have shown little support for the CofC thesis. The question remains whether these results are contingent upon the specification of the statistical model, or can be generalized to a broader set of conflict interactions. To this end, the analysis was replicated on three alternative dependent variables that identify different thresholds of conflict intensity, and different participants. The coding of these additional variables is based upon the ICB and the MID data, two of the most common datasets in quantitative International Relations.<sup>20</sup> The third additional dependent variable is coded using a subset of the conflict events in the Kosimo dataset that excludes the latent conflicts.

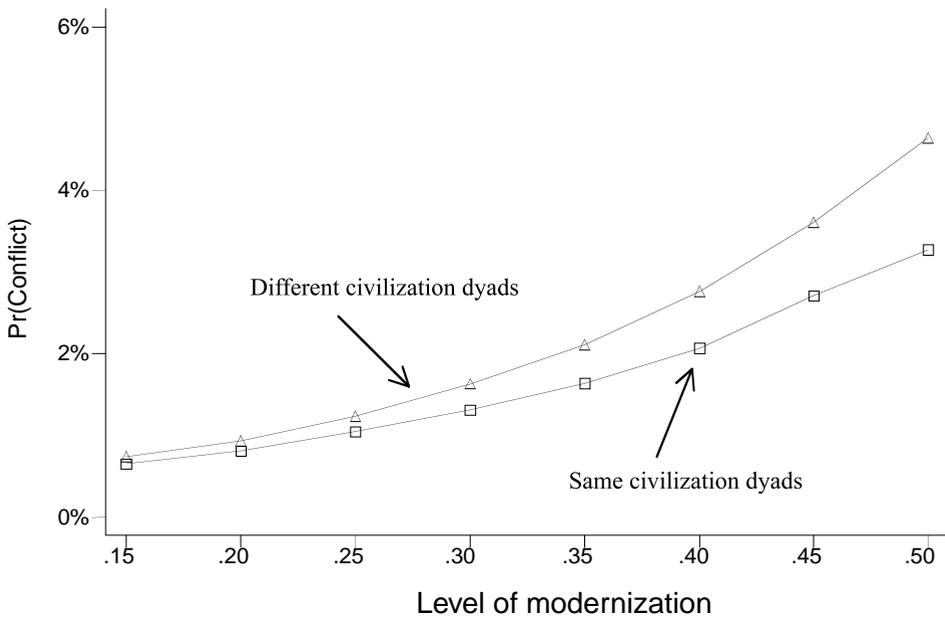
Table III shows that, regardless of the conflict type under investigation, dyads of different civilizations are less conflict prone than those of the same civilization. Across all three models, the coefficient on the intercivilization dummy variable is negative, and statistically different from zero. But it is also important to notice that the overall picture that emerges from Table III bears close resemblance to the one obtained while analyzing the Kosimo data. With the exception of three variables, namely the post-Cold War dummy, the interaction effect associated with it, and modernization, the signs of the coefficients remain unchanged.

It is probably not surprising that datasets that cover different portions of the post-Cold War period yield slightly different results regarding the incidence of conflict since the end of the bipolar confrontation. But the negative sign on the interaction term coefficient for the post-Cold War period

<sup>19</sup> The effect of modernization appears to be substantial as the modernization index gets larger than .5. This finding, however, should not be overstated. Very few countries score so high on that variable. The number of data points on which the predicted probabilities are computed is, therefore, limited. This makes the estimated effects strongly dependent on the features of the model more than on any underlying causal relationship (King & Zeng, 2001c).

<sup>20</sup> The datasets employed were Grieco's (2001) version of the ICB dataset and Maoz's (2001) version of the MID dataset.

Figure 2. Modernization and Conflict Involvement Across Civilizations



Other variables were set as follows:

- |                                |                                      |
|--------------------------------|--------------------------------------|
| (1) post-Cold War: 1           | (5) balance of military forces: mean |
| (2) different Cold War bloc: 0 | (6) major power: 1                   |
| (3) border: 1                  | (7) distance: mean                   |
| (4) regime type: 10            | (8) peace years: 18                  |

Range of variation of modernization: 5th percentile = .145; 95th percentile = .516

Values computed using King & Zeng's (2001a,b) Relogit program.

variable shows that if there is any difference in the likelihood of conflict before and after 1989, dyads of different civilizations have become even less prone to conflict. The modernization variable, on the other hand, fares differently with different dependent variables. The MID model yields results that are fairly similar to those of Model 2 in Table I, the difference being an interaction effect coefficient of larger magnitude, and significant at the .1 level in a two-tailed test. The ICB model and the Kosimo model excluding the latent crises, however, show that modernization has no impact on conflict for countries of same civilization, and that it might have a positive impact – at least in the ICB model – for countries of different civilizations. This result shows that caution

should be exercised in interpreting the effects of modernization across different empirical domains. But, even granting these differences, expanding the class of conflict interactions under investigation does not alter the overall conclusion: the evidence in support of Huntington's thesis remains tenuous at most.

## Conclusions

Three major conclusions follow from this study. First, intercivilizational dyads are not more likely to find themselves embroiled in international conflict, not even in the post-Cold War period, when civilizational conflict dynamics should be more prominent. They are usually less conflict prone than dyads comprising countries of the same civilization.

Table III. Alternative Specifications of the Dependent Variable

<i>Variables</i>	<i>Kosimo model (excluding latent crises)</i>			<i>ICB model 1946–94</i>			<i>MID model 1946–92</i>		
	<i>b</i>	<i>se(b)</i>	<i>p-value</i>	<i>b</i>	<i>se(b)</i>	<i>p-value</i>	<i>b</i>	<i>se(b)</i>	<i>p-value</i>
Intercivilization dyad	–1.643	0.684	0.016	–2.533	0.680	0.000	–1.112	0.410	0.007
Post-Cold War period	0.353	0.356	0.322	–0.243	0.484	0.615	0.203	0.335	0.545
Different Cold War bloc	0.695	0.433	0.108	0.381	0.347	0.272	0.682	0.213	0.001
Border	2.540	0.385	0.000	2.440	0.348	0.000	1.826	0.211	0.000
Regime type	–0.123	0.029	0.000	–0.104	0.029	0.000	–0.118	0.023	0.000
Modernization	–0.205	1.449	0.888	–0.124	1.525	0.935	1.580	0.915	0.084
<i>Interaction effects with intercivilization dyad</i>									
Post-Cold War period	–0.936	0.508	0.065	–0.662	0.669	0.323	–0.766	0.472	0.105
Different Cold War bloc	0.143	0.517	0.782	0.121	0.445	0.785	0.126	0.305	0.680
Border	0.339	0.570	0.552	0.982	0.450	0.029	0.235	0.329	0.475
Regime type	0.110	0.039	0.005	0.075	0.037	0.041	0.064	0.028	0.023
Modernization	2.624	1.905	0.168	4.415	1.991	0.027	2.010	1.188	0.091
<i>Temporal dependence</i>									
Peace years	–1.454	0.088	0.000	–0.552	0.053	0.000	–0.658	0.037	0.000
Spline(1)	–0.014	0.001	0.000	–0.005	0.001	0.000	–0.007	0.001	0.000
Spline(2)	0.010	0.001	0.000	0.004	0.001	0.000	0.005	0.001	0.000
Spline(3)	–0.003	0.0004	0.000	–0.001	0.0003	0.001	–0.002	0.0002	0.000
<i>Control variables</i>									
Balance of military forces	–0.810	0.656	0.217	–0.718	0.882	0.415	–1.842	0.458	0.000
Major power	1.845	0.301	0.000	2.063	0.323	0.000	2.110	0.167	0.000
Distance	–0.309	0.146	0.034	–0.246	0.136	0.069	–0.533	0.087	0.000
Constant	–0.587	1.148	0.609	–2.353	1.151	0.041	0.903	0.699	0.197
Number of observations	42461			36364			35216		

Coefficients represent estimates of a rare events logit model. Parameters estimated using King & Zeng's (2001a,b) Relogit program. Weighting option used with robust standard errors and clustering by dyad. All tests are two-tailed.

This finding adds to the systematic literature to date that is unresponsive of the empirical plausibility of the CofC thesis: intercivilization interactions are not placed on a path to ineluctable conflict. Second, the article might give special strength to the doubts in the literature about the thesis insofar as a disconfirming pattern was identified in the post-Cold War era, that is, precisely the time period in connection to which Huntington himself is most confident that the CofC argument should find evidentiary support. Third, while the civilization factor modifies the effects of border contiguity and regime type, these conditional effects are not sufficient to generate conditions under which differences in religious, ethnic, and cultural heritage are associated with greater risks of controversies and conflict. At most, countries of different civilization are as conflict prone as countries of the same civilization.

Other conflict dimensions central to Huntington's (1996) argument, namely intrastate violence and the breakup of nations, have not been addressed in this study. Civilizational and religious differences might indeed play a prominent role in those contexts, as the sadly familiar events in many parts of the world do not fail to remind us. Nonetheless, insofar as the CofC thesis aspired to pinpoint the likely trajectory of state relations in the 21st century, it has not yet garnered the empirical support necessary to make it a basis for foreign policy.

This does not necessarily mean that relations with China, Iran, and the Islamic countries – a fundamental theme in Huntington's (1996) analysis – will be rosy and smooth. While tensions and contrasts might arise, though, the civilizational factor is unlikely to be their main underlying cause. Civilizational differences seem unlikely to become the dominant factor that shapes the patterns of enmity and friendship in the international arena in the years to come.

## References

- Banks, Arthur S., 1976. *Cross-National Time Series, 1815–1973* [computer file]. ICPSR Study 7412. Ann Arbor, MI: Inter-University Consortium for Political and Social Research.
- Beck, Nathaniel & Richard Tucker, 1997. 'Conflict in Time and Space', Working Paper 97–8. Weatherhead Center for International Affairs, Harvard University (<http://www.ciaonet.org/wps/tur01/>).
- Beck, Nathaniel; Jonathan N. Katz & Richard Tucker, 1998. 'Taking Time Seriously in Binary Time-Series-Cross-Section Analysis', *American Journal of Political Science* 42(4): 1260–1288.
- Bennett, D. Scott & Allan C. Stam, 2001. *EUGene: Expected Utility Generation and Data Management Program*. Version 2.013 (<http://eugenesoftware.org>).
- Brecher, Michael & Jonathan Wilkenfeld, 1997. *A Study of Crisis*. Ann Arbor, MI: University of Michigan Press.
- Bremer, Stuart A., 1992. 'Dangerous Dyads: Conditions Affecting the Likelihood of Interstate War, 1816–1965', *Journal of Conflict Resolution* 36(2): 309–341.
- Bueno de Mesquita, Bruce, 1981. *The War Trap*. New Haven, CT: Yale University Press.
- Buzan, Barry, 1997. 'Civilizational Realpolitik as the New World Order?', *Survival* 39(1): 180–183.
- Collier, David & Steven Levitsky, 1997. 'Democracy with Adjectives: Conceptual Innovation in Comparative Research', *World Politics* 49(3): 430–451.
- Diamond, Larry J., 1996. 'Is the Third Wave Over?', *Journal of Democracy* 7(3): 20–37.
- Dixon, William J., 1994. 'Democracy and the Peaceful Settlement of International Conflict', *American Political Science Review* 88(1): 14–32.
- Farber, Henry S. & Joanne Gowa, 1995. 'Politics and Peace', *International Security* 20(2): 123–146.
- Fearon, James D. & David D. Laitin, 1996. 'Explaining Interethnic Cooperation', *American Political Science Review* 90(4): 715–735.
- Fearon, James D. & David D. Laitin, 2000. 'Violence and the Social Construction of

- Ethnic Identity', *International Organization* 54(4): 845–877.
- Fox, Jonathan, 2001. 'Two Civilizations and Ethnic Conflict: Islam and the West', *Journal of Peace Research* 38(4): 459–472.
- Friedrich, Robert J., 1982. 'In Defense of Multiplicative Terms in Multiple Regression Equations', *American Journal of Political Science* 26(4): 797–833.
- Gelpi, Christopher, 1999. 'Alliances as Instruments of Intra-Allied Control', in Helga Haftendorn, Robert O. Keohane & Celeste Wallander, eds, *Imperfect Unions: Security Institutions over Time and Space*. Oxford: Oxford University Press (107–139).
- Gill, Jeff, 2001. 'Interpreting Interactions and Interaction Hierarchies in Generalized Linear Models: Issues and Applications', paper presented at the 2001 Annual Meeting of the American Political Science Association, San Francisco, CA, 30 August–2 September (<http://pro.harvard.edu>).
- Gochman, Charles S., 1996/97. 'Correspondence: Democracy and Peace', *International Security* 21(3): 177–186.
- Grieco, Joseph M., 2001. 'Repetitive Military Challenges and Recurrent International Conflicts, 1918–1994', *International Studies Quarterly* 45(2): 295–316.
- Gurr, Ted Robert, 1994. 'Peoples Against the States: Ethnopolitical Conflict and the Changing World System', *International Studies Quarterly* 38(3): 347–377.
- Henderson, Errol A., 1997. 'Culture or Contiguity: Ethnic Conflict, the Similarity of States, and the Onset of War, 1820–1989', *Journal of Conflict Resolution* 41(5): 649–668.
- Henderson, Errol A., 1998. 'The Democratic Peace Through the Lens of Culture, 1820–1989', *International Studies Quarterly* 42(4): 461–484.
- Henderson, Errol A. & Richard Tucker, 1999. *The Clash of Civilizations Data Project*. Version 2.0 (<http://www.vanderbilt.edu/~rtucker/data/clash/member.html>).
- Henderson, Errol A. & Richard Tucker, 2001. 'Clear and Present Strangers: The Clash of Civilizations and International Conflict', *International Studies Quarterly* 45(2): 317–338.
- Huntington, Samuel P., 1993a. 'The Clash of Civilizations?', *Foreign Affairs* 72(3): 22–49.
- Huntington, Samuel P., 1993b. 'If not Civilizations, What? Paradigms of the Post-Cold War', *Foreign Affairs* 72(5): 186–194.
- Huntington, Samuel P., 1996. *The Clash of Civilizations and the Remaking of World Order*. New York: Simon & Schuster.
- Huntington, Samuel P., 1997. 'After Twenty Years: the Future of the Third Wave', *Journal of Democracy* 8(4): 3–12.
- Huntington, Samuel P., 2000. 'Try Again: A Reply to Russett, Oneal & Cox', *Journal of Peace Research* 37(5): 609–610.
- Huth, Paul K., 1996. *Standing Your Ground: Territorial Disputes and International Conflict*. Ann Arbor, MI: University of Michigan Press.
- Huth, Paul K., 1999. 'Enduring Rivalries and Territorial Disputes 1950–1990', in Paul F. Diehl, ed., *A Road Map to War: Territorial Dimension of International Conflict*. Nashville, TN: Vanderbilt University Press (37–72).
- Jervis, Robert, 1997. 'Book Review of *The Clash of Civilizations and the Remaking of World Order*', *Political Science Quarterly* 112(2): 307–308.
- Johnston, Alastair I., 1995. *Cultural Realism: Strategic Culture and Grand Strategy in Ming China*. Princeton, NJ: Princeton University Press.
- Jones, Daniel M.; Stuart A. Bremer & David Singer, 1996. 'Militarized Interstate Disputes, 1816–1992: Rationale, Coding Rules, and Empirical Patterns', *Conflict Management and Peace Science* 15(2): 163–213.
- Katzenstein, Peter J., 1996. 'Conclusion: National Security in a Changing World', in Peter J. Katzenstein, ed., *The Culture of National Security: Norms and Identity in World Politics*. New York: Columbia University Press (498–537).
- King, Gary & Langche Zeng, 2001a. 'Logistic Regression in Rare Events Data', *Political Analysis* 9(2): 137–163.
- King, Gary & Langche Zeng, 2001b. 'Explaining Rare Events in International Relations', *International Organization* 55(3): 693–715.
- King, Gary & Langche Zeng, 2001c. 'How Factual is Your Counterfactual?' Working Paper, 2 August (<http://gking.harvard.edu>).

- Levy, Jack S., 1988. 'Domestic Politics and War', *Journal of Interdisciplinary History* 18(4): 653-673.
- Lipset, Seymour Martin, 1994. 'The Social Requisites of Democracy Revisited', *American Sociological Review* 59(1): 1-22.
- Long, J. Scott, 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks, CA: Sage.
- Maoz, Zeev, 2001. *Dyadic Militarized Interstate Disputes Dataset*. Version 1.1 (ftp://spirit.tau.ac.il/~zeevmaoz/dyadmid60.xls).
- Maoz, Zeev & Bruce Russett, 1993. 'Normative and Structural Causes of Democratic Peace 1946-1986', *American Political Science Review* 87(3): 624-638.
- Mercer, Jonathan, 1995. 'Anarchy and Identity', *International Organization* 49(2): 229-252.
- Mitchell, B. R., 1998a. *International Historical Statistics: Africa, Asia & Oceania, 1750-1993*. London: Macmillan.
- Mitchell, B. R., 1998b. *International Historical Statistics: The Americas, 1750-1993*. London: Macmillan.
- Mitchell, B. R., 1998c. *International Historical Statistics: Europe, 1750-1993*. London: Macmillan.
- Morse, Edward L., 1970. 'The Transformation of Foreign Policies: Modernization, Interdependence, and Externalization', *World Politics* 22(3): 371-392.
- Nagler, Jonathan, 1994. 'Scobit: An Alternative Estimator to Logit and Probit', *American Journal of Political Science* 38(1): 230-255.
- Oneal, John R. & Bruce M. Russett, 1997. 'The Classical Liberals Were Right: Democracy, Interdependence, and Conflict 1950-1985', *International Studies Quarterly* 41(2): 267-294.
- Organski, A. F. K. & Jacek Kugler, 1980. *The War Ledger*. Chicago, IL: University of Chicago Press.
- Owen, John M., 1994. 'How Liberalism Produces Democratic Peace', *International Security* 19(2): 87-125.
- Pfetsch, Frank R. & Christoph Rohloff, 2000. 'KOSIMO: A Databank on Political Conflict', *Journal of Peace Research* 37(3): 379-389.
- Polity IV Project, 2000. *Polity IV Dataset* [computer file; version p4v2000]. College Park, MD: Center for International Development and Conflict Management, University of Maryland.
- Przeworski, Adam & Fernando Limongi, 1997. 'Modernization: Theory and Facts', *World Politics* 49(2): 155-183.
- Ray, James Lee, 1995. *Democracies and International Conflict: An Evaluation of the Democratic Peace Proposition*. Columbia, SC: University of South Carolina Press.
- Russett, Bruce, 1993. *Grasping the Democratic Peace: Principles for a Post-Cold War World*. Princeton, NJ: Princeton University Press.
- Russett, Bruce; John R. Oneal & Michaelene Cox, 2000. 'Clash of Civilizations, or Realism and Liberalism Déjà Vu? Some Evidence', *Journal of Peace Research* 37(5): 583-608.
- Sartori, Giovanni, 1995. 'How Far Can Free Government Travel?', *Journal of Democracy* 6(3): 101-111.
- Thompson, William R. & Richard Tucker, 1997. 'A Tale of Two Democratic Peace Critiques', *Journal of Conflict Resolution* 41(3): 428-454.
- Tucker, Richard, 1999. *BTSCS: A Binary Time-Series-Cross-Section Data Analysis Utility*. Version 3.0.4 (<http://www.vanderbilt.edu/~rtucker/programs/btscs/>).
- Welch, David, 1997. 'The "Clash of Civilizations" Thesis as an Argument and as a Phenomenon', *Security Studies* 6(4): 197-216.
- Zakaria, Fareed, 1997. 'The Rise of Illiberal Democracies', *Foreign Affairs* 76(6): 22-43.

GIACOMO CHIOZZA, b. 1968, PhD candidate in Political Science, Duke University. Specializing in international relations and political methodology.