

Birds of a Feather Flock Apart? Testing the Critique of the Clash of Civilizations Thesis

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Abstract

When the article "Is there a Clash of Civilizations? Evidence from the Patterns of International Conflict Involvement, 1946-97" by Giacomo Chiozza was published in 2002 it followed a line of researchers testing Samuel Huntington's Clash of Civilizations-thesis. Through statistical analysis Chiozza argued that civilizational differences seemed unlikely to be the source of between-state conflicts in the years to come. Yet, the following years have seen such conflicts arise, for example the 2003 invasion of Iraq, and 2006 Lebanon war seemingly proves Huntington was right. Chiozza's analysis includes both latent conflicts, crises, and conflicts. In this article I test Chiozza's findings by excluding the non-violent conflicts. My results are along the lines of Chiozza's results, even though the negative effect of intercivilizational dyads is somewhat modified after replacing the dependent variable. The same conclusion is drawn when investigating dyads that are already in a state of conflict. Intercivilizational dyads are not more likely to be involved in war. However, if one includes all external military intervening parties the number of cross-civilizational conflicts greatly increases compared to inter-civilizational ones

Keywords: Huntington, clash of civilizations, interstate conflicts, dyads, Chiozza

Introduction

In March 2003, a coalition of mainly Western forces, under the leadership of the United States invaded Iraq – 12 years after this Muslim country had been driven out of Kuwait by the U.S.

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and its allies in a war mandated by the United Nations.¹ The previous year, in 2002, Muslim Afghanistan had been the target of yet another U.S.-led, predominantly Western coalition. And in Europe, the break-up of two large multinational states, the Soviet Union and Yugoslavia, had witnessed several wars being fought between groups and nations of different religions. Could it be that these events point to the prominence in the post-Cold War world of divisions between civilizations? – a prominence forewarned by Samuel P. Huntington in his 1993 article, “The Clash of Civilizations?,”² and in his subsequent 1996 book, *The Clash of Civilizations and the Remaking of World Order*.³ In these works, Huntington stated and outlined his now famous expectation, that the most dangerous and bloody conflicts after the Cold War would likely take place between parties belonging to different cultures or civilizations.

We investigate this proposition by testing the effect of inter-civilizational dyads on the propensity for war for the period 1946-1997(2005). We do not, however, build our model from scratch. Instead we take as our point of departure Giacomo Chiozza's well-constructed 2002 analysis, published in *Journal of Peace Research*,⁴ seeking to further and improve on this and other empirical investigations of Huntington's proposition. We specifically make three potentially important alterations to Chiozza's original model. First, we exclude non-violent conflicts from the dichotomous dependent variable and instead focus exclusively on inter-civilizational war (Chiozza also investigated latent conflicts and crises), thereby conforming more closely to Huntington's main argument, that the most vicious and bloody conflicts (rather than *all* types of interstate conflict) would tend to be inter-civilizational. Second, we also check to see if inter-civilizational conflicts have a greater probability of *escalating* into a state of war than do intra-civilizational conflicts, which amounts to a test of another important contention by Huntington. And third, by way of frequency analysis we investigate if the proportion of inter-civilizational war dyads increases when all feuding states – and not just the main protagonists – are coded as warring parties, and when the time period under investigation is prolonged by eight years.

Despite these alterations to the base model, our results generally match those of Chiozza: all else being equal, inter-civilizational dyads are *less*, not *more*, likely to be involved in war than are intra-civilizational dyads (although this negative effect is modified somewhat in our analysis). Neither do inter-civilizational conflicts have a greater probability of escalating into a state of war than conflicts between participants belonging to the same civilization. The third alteration made, however, does yield some contrasting results, which should nonetheless only be regarded as tentative (since they stem from mere frequency analysis): when we code as warring parties all

¹ The authors are extremely grateful to Giacomo Chiozza for providing information about the data, and for words of encouragement. We would also like to thank Tanja Ellingsen and two anonymous referees for their very insightful comments. All errors, however, must be attributed to us.

² Samuel P. Huntington, “The Clash of Civilizations?”, *Foreign Affairs*, 11 (1993), pp.22-49.

³ Samuel P. Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Simon & Schuster, 1996).

⁴ Giacomo Chiozza, “Is there a Clash of Civilizations? Evidence from Patterns of International Conflict Involvement, 1946-97”, *Journal of Peace Research*, 39 (2002), pp.711-734.

states intervening in a conflict – including, for example, the alliance or coalition members of the main actors at war – and lengthen the time period covered (given Huntington's emphasis on the post-Cold War era), the relative prevalence of inter-civilizational war dyads increases substantially, perhaps suggesting that the controversial notions first put forth by Huntington some 17 years ago deserve even further attention by scholars.

The clash of civilizations

When Samuel P. Huntington presented his Clash of Civilizations thesis, it immediately triggered numerous responses from scholars in the field of international relations. Not only did Huntington emphatically refute the validity of any notions about the "end of history" and the final victory of Western liberal-democratic capitalism,⁵ but his argument also questioned some of the most basic, realist assumptions in international politics, namely that the state is the principal actor in world affairs, and that states' quest for glory, power, and security – and the recurring need to balance the power of other states – constitute the main causes of interstate warfare.⁶

Huntington's basic unit of analysis is the *civilization*. A cultural entity, a civilization denotes "the highest cultural grouping of people and the broadest level of cultural identity people have short of what distinguishes humans from other species."⁷ To belong to a civilization involves sharing language, history, values, norms, institutions, and, most importantly, religion with other members of that civilization. And it also inevitably means that one distinguishes oneself culturally from members of other civilizations. Inter-civilizational differences are, according to Huntington, basic: there are marked differences between civilizations in the way people view relations between God and man, the individual and the group, the citizen and the state, husband and wife, freedom and authority – and similar stark differences exist regarding the importance one places on notions such as responsibility and rights, freedom and authority, and equality and hierarchy.⁸ Moreover, these differences are largely irresolvable; they "are the product of centuries [and] far more fundamental than differences among political ideologies and political regimes"⁹ – they concern the very self-identification of man. And importantly, they delineate borders between cultural units whose external borders do not follow the boundaries between nation-states. A civilization may include only one state, but more often it encompasses sundry political units; and boundaries between different civilizations may run straight through a nation-state. The world is, according to Huntington, divided into seven, eight, or nine such civilizations

⁵ See: Francis Fukuyama, "The End of History", *National Interest*, 16 (1989), pp. 3-18.

⁶ See, for example: Kenneth N. Waltz, *Man, the State and War: A Theoretical Analysis* (New York, Columbia University Press, 1959); and John J. Mearsheimer, "The False Promise of International Institutions", *International Security*, 19 (1994/1995), pp.5-49.

⁷ Huntington, "The Clash of Civilizations?", p.24.

⁸ Huntington, "The Clash of Civilizations?", p.25.

⁹ Huntington, "The Clash of Civilizations?", p.25.

(some ambiguity still exists regarding the exact number): Western, Sinic (Confucian), Japanese, Islamic, Hindu, Slavic-Orthodox, Latin American, and, possibly, Buddhist and African.

Huntington's main message, and ultimate prediction, was that the most severe international conflicts in the post-Cold War era were likely not to be essentially ideological or economic in nature, but *cultural*. While he did not predict the end of the nation-state, he vehemently held that "the principal conflicts of global politics will occur between nations and groups of different civilizations. The clash of civilizations will dominate global politics. The fault lines between civilizations will be the battle lines of the future"¹⁰ – in particular, we should add, the fault line separating the Islamic and the Western civilizations. *Fault-line wars* – that is, wars across civilizational boundaries – is a key phrase here, whether such wars take place at the macro (interstate) or micro (intrastate) level. This is not to say, however, that intra-civilizational conflicts will cease to be a concern. Huntington clearly acknowledged the continued prominence of tribal warfare, ethnic conflicts, and wars between states belonging to the same civilization. But he also held that inter-civilizational disputes carry with them a far greater escalatory potential given the inherent tendency for such conflicts to inflame due to the likely eventual military involvement by external actors racing to support their civilizational kin. Thus, Huntington stressed the point that these inter-civilizational clashes – whether they concerned issues relating to weapons of mass destruction, human rights and democracy, natural resources, migration, terrorism, or Western intervention – were bound to be more severe, more dangerous, and more bloody than other non-civilizational wars.¹¹

Empirical tests of Huntington's clash of civilizations thesis

Several scholars have tested Huntington's argument empirically. Using the Correlates of War (COW) data, Bruce M. Russett, John R. Oneal, and Michaelene Cox investigated the degree to which the Clash of Civilizations thesis could account for militarized interstate disputes 1950-1992, finding little evidence that civilizations clash.¹² This quickly prompted a reply from Huntington, who pointed out that the thrust of his thesis concerned the post-Cold War period.¹³ Yet, Jonathan Fox, using statistics from the Minorities at Risk dataset for the period 1945-1998, showed that little had indeed changed in this respect since the Cold War ended (with the important exception that the proportion of civilizational conflicts involving the West and Islam increased rather markedly in this period).¹⁴ Errol A. Henderson and Richard Tucker, for their part,

¹⁰ Huntington, "The Clash of Civilizations?", p.22.

¹¹ Huntington, *The Clash of Civilizations*, p.252.

¹² Bruce M. Russett, John R. Oneal and Michaelene Cox, "Clash of Civilizations, or Realism and Liberalism Déjà Vu? Some Evidence", *Journal of Peace Research*, 37(2000), pp.583-608.

¹³ Samuel P. Huntington, "Try Again: A Reply to Russett, Oneal and Cox", *Journal of Peace Research*, 37 (2000), pp.609-610.

¹⁴ Jonathan Fox, "Two Civilizations and Ethnic Conflict: Islam and the West", *Journal of Peace Research*, 38 (2001), pp.459-472.

found no significant connection between civilization membership and interstate war between 1816 and 1992,¹⁵ a finding that was later corroborated by Errol A. Henderson,¹⁶ by Sean Bolks and Richard J. Stoll,¹⁷ and by Erik Gartzke and Kristian S. Gleditsch,¹⁸ the latter of which reported evidence to suggest that collective violence occurred more often *within* than *between* civilizations. With regard to international terrorism, too, Huntington receives criticism. Eric Neumayer and Thomas Plumper find no increase in inter-civilizational terrorism after the Cold War, and recent years have not seen any rise in the number of terrorist attacks committed by groups belonging to the Islamic world against nationals from other civilizations.¹⁹

However, Huntington does receive some support from the literature. Paul K. Huth, for instance, argues that ethnic and linguistic ties between one's own population and those living in a disputed territory can easily spur conflict.²⁰ Andrej Tuscisny highlights the relative importance of fault-line conflicts in the post-Cold War period and finds, in an analysis that includes conflicts between as well as within states, that the majority of years with inter-civilizational conflict have involved Islamic groups.²¹ Tuscisny writes that the "clash of civilizations seems to be a real and important phenomenon,"²² and that Huntington's thesis therefore provides a very useful approach to the study of conflict, and he stresses the importance of focusing on the *intensity* of (inter-civilizational) conflicts rather than just their mere numbers. Using a dataset that records war initiations for the period 1816-2001, Andreas Wimmer and Brian Min show that wars are more likely during, and are in essence often caused by, macro-institutional transformations like empire dismemberment and the formation of nation-states.²³ Even though they make a point of distancing themselves from Huntington by stating that the increased number of conflicts observed in recent decades is simply an instance of history repeating itself, their analysis does not in itself invalidate the Clash of Civilizations thesis; in fact, Huntington himself emphasized that the Cold War functioned as a tight lid preventing the outbreak of many a simmering conflict – and

¹⁵ Errol A. Henderson and Richard Tucker, "Clear and Present Strangers: The Clash of Civilizations and International Conflict", *International Studies Quarterly*, 45 (2001), pp.317-338.

¹⁶ Errol A. Henderson, "Mistaken Identity: Testing the Clash of Civilizations Thesis in Light of Democratic Peace Claims", *British Journal of Political Science*, 34 (2004), pp.539-554.

¹⁷ Sean Bolks and Richard J. Stoll, "Examining Conflict Escalation Within the Civilizational Context", *Conflict Management and Peace Science*, 20 (2003), pp.85-109.

¹⁸ Erik Gartzke and Kristian S. Gleditsch, "Identity and Conflict: Ties that Bind and Differences that Divide", *European Journal of International Relations*, 12 (2006), pp.53-87.

¹⁹ Eric Neumayer and Thomas Plumper, "International Terrorism and the Clash of Civilizations", *British Journal of Political Science*, 39 (2009), pp.711-734.

²⁰ Paul K. Huth, *Standing Your Ground: Territorial Disputes and International Conflict* (Ann Arbor, MI: University of Michigan Press, 1996).

²¹ Andrej Tuscisny, "Civilizational Conflicts: More Frequent, Longer, and Bloodier?", *Journal of Peace Research* 41 (2004), pp.485-498.

²² Tuscisny, "Civilizational Conflicts", p.497

²³ Andreas Wimmer and Brian Min, "From Empire to Nation-States: Explaining the Modern World", *American Sociological Review*, 71 (2006), pp.867-897.

with the sudden disappearance of this lid, the world would soon witness the boiling over of a substantial number of such seething ethnic and religious tensions.

Overall, however, the existing literature is not very favourable to Huntington's proposition. His "theory" instantly raised many eyebrows among academics and politicians alike, and his critics were and are many.²⁴ The present article takes as its point of departure one such critical examination of Huntington's work, namely Giacomo Chiozza's 2002 article "Is there a Clash of Civilizations?" In this well-constructed and persuasive study, the author also seeks to address some of the potential shortcomings of his predecessors' empirical analyses, agreeing with Huntington that the tests conducted by Russett, Oneal, and Cox,²⁵ and by Henderson and Tucker,²⁶ contain some important limitations that might invalidate the conclusions derived therefrom. Nonetheless, Chiozza's analysis also fails to yield any evidence of a Clash of Civilizations; rather, his results indicate that inter-civilizational dyads are less likely to get involved in international disputes. Moreover, the findings also suggest that the years following the end of the Cold War have witnessed a decrease in the likelihood of interstate conflict.

Still, Chiozza's analysis is not without its own problems. First, his acknowledgment of the deficiencies of past empirical studies notwithstanding, Chiozza's data are also predominantly centred on the Cold War era, even though Huntington clearly states that "in the post-Cold War world, for the first time in history, global politics has become multipolar *and* multicivilizational."²⁷ Before 1989, civilizational and ethnic conflicts were to a large extent repressed by the manifest bipolarity of the international system.²⁸ But while such a potential problem can be rectified somewhat by including a dummy variable for the post-Cold War period in addition to an interaction variable between inter-civilizational dyads and post-Cold War period, like Chiozza indeed does, and by prolonging the time period under study, like we do, a second quandary probably requires more profound changes to the data. This concerns the dependent variable; in Chiozza's analysis, this is international dispute – "the clashing of opposing interests or positional differences around national values and issues"²⁹ – a broad measure that includes not only all-out warfare but also latent, i.e. non-violent conflicts and crises. Yet, in our view, to employ such an all-embracing measure of international conflict does not square well with Huntington's primary focus on *the most dangerous* conflicts – that is, on war.

Third and closely linked to the preceding point, one should also keep in mind that Huntington insisted on the special *escalatory potential* that is inherent in inter-civilizational

²⁴ See, for example: Amartya Sen, *Identity and Violence: The Illusion of Destiny* (London: Allan Lane, 2006); and Paul Berman, *Terror and Liberalism* (New York: W.W. Norton, 2003).

²⁵ Russett, Oneal and Cox, "Clash of Civilizations."

²⁶ Henderson and Tucker, "Clear and Present Strangers."

²⁷ Huntington, *The Clash of Civilizations*, p.21.

²⁸ Tanja Ellingsen, "Colorful Community or Ethnic Witches' Brew? Multiethnicity and Domestic Conflict during and after the Cold War", *Journal of Conflict Resolution*, 44 (2000), pp.228-249.

²⁹ Franck R. Pfetsch and Christoph Rohloff, "Kosimo: A Databank on Political Conflict", *Journal of Peace Research*, 37 (2000), pp.379-389 (citation is from p.386).

conflicts. It seems that, for Huntington, the Clash of Civilizations thesis is not necessarily so much an explanation and prediction of differences in the sheer numbers of inter-civilizational and intra-civilizational violent conflicts than it is an account about why the former type of clashes tends to be more intense, more serious, and more bloody and why it also carries a particular risk of intensifying, or escalating further. He writes, for example, that inter-civilizational conflicts "will be more frequent, more sustained and more violent than conflicts between groups in the same civilization; violent conflicts between groups in different civilizations are the most likely and most dangerous source of escalation that could lead to global wars."³⁰ Furthermore: "In the coming years, the local conflicts most likely to escalate into major wars will be those, as in Bosnia and the Caucasus, along the fault lines between civilizations. The next world war, if there is one, will be a war between civilizations."³¹ Thus, to proxy Huntington's theoretical concept of conflict by a measure that is too broad – and one that treats a conflict as a conflict, so to speak, no matter what its idiosyncrasies or severity – amounts, in our view, to a fallacy of deduction. What we do, therefore, is effectively to replace "international dispute" with a more narrow measure of war proper.

Fourth, in the Kosimo data set on which Chiozza draws, many of the early civilizational conflicts are not classified as interstate wars for the simple fact that these were wars of liberation between (not yet independent) colonial states and their respective colonial powers. This, however, represents a problem in the type of empirical analysis undertaken by Chiozza and by us, as it can easily be argued that the proportion of inter-civilizational dyads coded as dyads at war is underestimated; most of these colonies were, for all intents and purposes, *de facto* independent states at the time of fighting (but not *de jure* independent ones, and so they are not included in neither our nor Chiozza's data) – and the fights were inter-civilizational. Likewise, several "civilization wars" – like the 2003 invasion of Iraq – have been fought by multinational coalitions, yet in the Kosimo data not all of the participants, only the main protagonists, are coded as being directly involved in the conflict. (Consider also the findings of Regan, which suggest that third-party interventions tend to extend, rather than shorten, the expected durations of conflicts.³²) In other words, it is not wholly implausible that a recoding of the data along the line of the reasoning above might yield new support for Huntington's theory. In any case, from the discussion so far, three hypotheses emerge:

H1: Inter-civilizational dyads are more likely to be involved in war than are intra-civilizational dyads.

H2: If one includes all feuding parties to a conflict, inter-civilizational dyads are more likely to be involved in war.

³⁰ Huntington, "The Clash of Civilizations?", p.48.

³¹ Huntington, "The Clash of Civilizations?", p.39.

³² Patrick M. Regan, "Third Party Interventions and the Duration of Interstate Conflicts", *Journal of Conflict Resolution*, 46 (2000), pp.55-73.

H3: For dyads already in a state of conflict, inter-civilizational ones have a greater probability of escalating into a state of war.

Data and measurement

As a point of departure, to test our hypotheses we employ the same data as Chiozza, who draws on the Kosimo dataset compiled by the Heidelberg Institute on International Conflict Research³³ – but where deemed necessary, and this applies primarily to the dependent variable, we recode these data in order to approach more closely what we believe to be the gist of Huntington's thesis. The task of replicating Chiozza's results was easy, as he has fully complied with replication standards.³⁴

From the Kosimo data, Chiozza proceeds to construct a dataset for the period 1946-1997 in which the unit of analysis is the dyad-year; i.e., each observation represents a pair of countries in a given year.³⁵ This yields a total of 400,165 observations, of which 3,142 were engaged in an "international dispute" – the dependent variable KOSIMO in Chiozza's analysis (a dummy-coded measure that takes the value 1 if a given dyad in a given year experienced conflict). But, as we have accounted for earlier, it is doubtful whether Chiozza's broadly conceived measure of conflict – which, in addition to armed conflicts, also includes non-violent disputes and crises – constitute the most appropriate dependent variable available given the quite specific purpose of testing the Clash of Civilizations thesis. This concern leads us to employ, in lieu of KOSIMO, the variable WAR, which being one of the constituent parts of Chiozza's dependent measure, is also extracted from the original Kosimo dataset. This variable defined as "the systematic and collective use of force of some duration and extent between comparable opponents";³⁶ is largely contrasted to crises and latent conflicts by encompassing only those interstate clashes between sovereigns where the parties cross a certain threshold of violence – that is, where the belligerents use considerable means of physical force to advance their goals, resulting in a substantial, and persistent, amount of destruction (in contrast to most other conflict databanks, Kosimo's war measure does not use the number of deaths as a criterion for inclusion/exclusion).³⁷

As for the independent variables employed in the present study, they closely match those used by Chiozza. The main explanatory measure is INTERCIVILIZATION DYAD, a dummy variable that is coded 1 for all dyads containing states belonging to different civilizations. Chiozza has

³³ The data set, codebook, and do-files for the empirical analyses in this article can be downloaded from <http://www.prio.no/jpr/datasets>. The Kosimo data set can be downloaded from the web pages of Heidelberger Institut für Internationale Konfliktforschung, at <http://www.hiik.de>.

³⁴ See: Gary King, "Replication, Replication", *Political Science and Politics*, 28 (1995), pp.444-452.

³⁵ Chiozza's units are the population of dyad-years for all the countries listed in the Polity IV (2000) data set.

³⁶ Pfetsch and Rohloff, "Kosimo", p.386.

³⁷ See the web pages of Heidelberger Institut für Internationale Konfliktforschung at <http://www.hiik.de>.

classified nine such civilizations (including an African and a Buddhist one).³⁸ In accordance with Henderson and Tucker,³⁹ he has also created a residual category for a few countries that are not clearly identified as members of any specific civilization.⁴⁰

Also included among the regressors are dummy variables for POST-COLD WAR PERIOD, where all the years after 1989 are coded as 1 (to account for Huntington's insistence on the particular salience of inter-civilizational conflicts after the end of the Cold War); DIFFERENT COLD WAR BLOC, which is coded 1 for all dyads involving countries that were members of different Cold War alliances; and BORDER, which is coded as 1 if the two countries in a dyad share a common border. There are also two continuous measures among the explanatory variables. REGIME TYPE is measured using the Polity IV data set.⁴¹ Here, a dyad is given the score of the least democratic country belonging to that dyad (under the assumption that the character of interstate conflagrations is largely a function of the least constitutionally constrained nation⁴²). The same principle is applied to MODERNIZATION: the least developed country determines the dyad's value.

One of the novelties of Chiozza's study was that he interacted INTERCIVILIZATION DYAD with each of the five variables described in the preceding paragraph. This was to check if the effects of these variables differed depending on the dyad's value on the inter-civilization dummy – that is, he wanted to investigate the possibility that the civilization factor might influence the probability of conflict by altering the effects of other explanatory variables.

Also included are controls for the effect of BALANCE OF MILITARY FORCES, with lower scores indicating greater balance (between the military strength of members of a given dyad); whether or not a dyad consists of one or more MAJOR POWER; and the DISTANCE between the capital cities of the countries in a dyad (number of miles, logged). These three variables can be described as typical *realist* measures of the likelihood of war (or its absence).

Apart from the inter-civilization variable, the explanatory and control variables provided by Chiozza are in accordance with Stuart A. Bremer's study of dyad characteristics that promote or inhibit war.⁴³ Chiozza also introduced a variable called PEACE YEARS – which denotes the

³⁸ Chiozza, "Is there a Clash of Civilizations?", p.722.

³⁹ Henderson and Tucker, "Clear and Present Strangers."

⁴⁰ The Philippines, Nigeria, Kenya, and Israel are among the countries in this category. The civilization indicator takes on the value of 1 when both countries in a dyad are coded as belonging to the residual category.

⁴¹ Polity IV Project, *Polity IV Dataset* (College Park, MD: Center for International Development and Conflict Management, University of Maryland, 2000).

⁴² See: John R. Oneal and Bruce M. Russett, "The Classical Liberals Were Right: Democracy, Interdependence, and Conflict 1950-1985", *International Studies Quarterly*, 41 (1997), pp.267-294.

⁴³ See: Stuart A. Bremer, "Dangerous Dyads: Conditions Affecting the Likelihood of Interstate War, 1816-1965", *Journal of Conflict Resolution*, 36 (1992), pp.309-341. This is not to say, however, that the variable selection is entirely unproblematic. REGIME TYPE and MODERNIZATION, for example, could very well be conceived of as intermediate variables whose inclusion could, to an unjustifiable degree, work to remove explanatory power from INTERCIVILIZATION DYAD. According to Huntington, democratization was most

number of years that have elapsed since the last crisis between two members of a dyad – as a control for temporal dependence. Since our dependent measures differ, however, we replaced this variable with YEARS SINCE LAST WAR, which should also ease any problems with autocorrelation.⁴⁴

Testing hypothesis 1: are inter-civilizational dyads more prone to war?

To test our first hypothesis – whether inter-civilizational dyads are more likely to be involved in war than are intra-civilizational dyads – we use a Y variable extracted from the original Kosimo dataset denoting the likelihood of war. This variable was integrated with Chiozza's replication dataset, in which international dispute (KOSIMO) is the dependent measure. From *Table 1* we note that the two analyses – ours and Chiozza's – have different N's. Considering Chiozza's specific choice of method – he removed 90 percent of non-event observations, which enabled him to measure much more sophisticated independents⁴⁵ – some changes had to be made to the data set before running results on WAR. Specifically, we chose to remove, by random, 90 percent of the dyads coded as a conflict (i.e., coded 1) by Chiozza, provided they were not coded as 1 on the new variable WAR, resulting in the deletion of 2,651 out of 2,945 cases of conflict (but without war) from the dataset.

Statistically, in terms of the number of cases coded as 1, WAR is at a disadvantage vis-à-vis KOSIMO. According to Gary King and Langche Zeng,⁴⁶ the logit coefficients of rare-events analysis are biased in small samples (those with fewer than two hundred observations) – and only 197 of the Kosimo dyads can be coded as 1 on WAR. One of the problems of logistic regression is that it underestimates the probability of rare events. Following Chiozza, we therefore chose to use King and Zeng's rare-events logit model with bias-corrected coefficients.⁴⁷ (In additional, unreported models, we also ran a binary logistic analysis, which yielded much the same results as those reported here, although the coefficients differed a little from the relogit method.) The results presented in *Tables 2* and *4* are thus obtained by using King and Zeng's Relogit software. By relying on this approach, we obtain, instead of logit coefficients, bias-corrected coefficients; instead of probabilities, we get relative risks; and first differences computed on the basis of logit

successful in countries where Christian and Western influences were strong. And the West alone had 48.9 percent of world GDP in 1992 (Huntington, *The Clash of Civilizations*, p.87). Furthermore, Max Weber famously stated that Western Protestantism was the very foundation of modern capitalism. Yet, there are sound reasons for including these variables as well (see: Bremer, "Dangerous Dyads") – and Chiozza certainly does alleviate some of these concerns by employing interaction terms.

⁴⁴ See: Lawrence C. Hamilton, *Regression with Graphics: A Second Course in Applied Statistics* (Belmont, CA: Duxbury Press, 1992), p.118.

⁴⁵ See: Gary King and Langche Zeng, "Explaining Rare Events in International Relations", *International Organization*, 55 (2001), pp.693-715 (see in particular p.707).

⁴⁶ King and Zeng, "Explaining Rare Events", p.693.

⁴⁷ King and Zeng, "Explaining Rare Events."

coefficients result in better estimates from relogit runs.⁴⁸ As advised by some,⁴⁹ we have chosen weighting over prior correction, to correct for the bias introduced by sub-sampling the zero cases. The observations are also clustered by dyad, in accordance with the advice of Nathaniel Beck and Richard Tucker.⁵⁰

Table 1. The dependent variables

KOSIMO (Chiozza's dependent variable)	WAR (our dependent variable)
0 = Absence of conflict	0 = No war
1 = Presence of conflict	1 = War
N = 42,844	N = 40,193
1 = 3,142	1 = 197
0 = 39,702	0 = 39,996

Table 2 exhibits Chiozza's model (with KOSIMO as the dependent variable) to the left, and ours (with WAR as the dependent) to the right. Except for the fact that we employ different dependent variables (and, therefore, different temporal controls), the two models are exactly the same.⁵¹ Results suggest that the effect of being in an inter-civilizational dyad is approximately the same in both models, thus prompting us to reject our first hypothesis. In fact, inter-civilizational dyads seem *less* likely to be involved in war – and, as Chiozza showed, less likely to be engaged in conflict altogether. And there is nothing to indicate that any change has taken place since the end of the Cold War (as can be seen from the interaction variable between

⁴⁸ King and Zeng, "Explaining Rare Events", p.702.

⁴⁹ Chiozza, "Is there a Clash of Civilizations?"; Gary King and Langche Zeng, "Logistic Regression in Rare Events Data", *Political Analysis*, 9 (2001), pp.137-163; Yu Xie and Charles F. Manski, "The Logit Model and Response-Based Samples", *Sociological Methods and Research*, 17 (1989), pp.283-302.

⁵⁰ Nathaniel Beck and Richard Tucker, "Conflict in Time and Space", Working Paper 97-8 (Harvard, MA: Harvard University, Weatherhead Center for International Affairs, 1997).

⁵¹ Chiozza included a natural cubic spline with three knots given that there was no *a priori* theoretical reason for expecting a linear impact of time on the probability of conflict. We made the same assumption for YEARS SINCE WAR; thus, we also employ a natural cubic spline with three knots. Natural cubic splines fit cubic polynomials to a predetermined number of subintervals of a variable. These polynomials are jointed at "knots" with the number and placement of the knots specified by the analyst. Forcing the splines, and their first and second derivatives, to agree at each of the knots imposes smoothness. Hence, we can quite flexibly fit a cubic spline while expending only very few degrees of freedom. The estimated spline coefficients can then be used to trace out the path of duration dependence. See: Nathaniel Beck, Jonathan N. Katz and Richard Tucker, "Taking Time Seriously: Time-Series–Cross-Section Analysis with a Binary Dependent Variable", *American Journal of Political Science*, 42 (1998), pp.1260-1288 (see in particular p.1270).

INTERCIVILIZATION DYAD and POST-COLD WAR PERIOD). At first glance, at least, we might tentatively conclude that there is little to suggest Huntington was right: the results on INTERCIVILIZATION DYAD displayed in Table 2 are negative and significant. Further, unreported testing, moreover, revealed that the effect of our main independent variable is still negative (although not significant) even when one omits all the “non-realism” variables from the model. So far, our findings have confirmed Chiozza's results.

Table 2. The Effects of inter-civilizational dyads on conflict (Chiozza's model) and war (our model), 1946-1997

Chiozza's model (KOSIMO)				Our model (WAR)		
Variables	b	se(b)	p-value	b	se(b)	p-value
Intercivilization dyad	-2.203	0.640	0.001	-2.516	0.508	0.000
Post-Cold War period	-0.874	0.378	0.021	0.558	0.388	0.151
Different Cold War bloc	0.428	0.351	0.223	0.389	0.264	0.140
Border	2.325	0.351	0.000	3.391	0.279	0.000
Regime type	-0.103	0.023	0.000	-0.096	0.025	0.000
Modernization	4.667	1.557	0.003	-0.223	1.085	0.837
<i>Interaction effects with intercivilization dyad</i>						
Post-Cold War period	0.070	0.516	0.892	-0.844	0.537	0.875
Different Cold War bloc	0.738	0.434	0.089	1.021	0.377	0.007
Border	1.160	0.469	0.013	1.636	0.397	0.000
Regime type	0.094	0.029	0.001	0.040	0.040	0.241
Modernization	0.765	1.854	0.680	1.355	1.410	0.337
<i>Temporal dependence</i>						
Peaceyrs/Yearssincewar*	-1.743	0.095	0.000	-0.427	0.066	0.000
Spline(1)	-0.017	0.001	0.000	-0.0001	0.000	0.339
Spline(2)	0.012	0.001	0.000	-0.002	0.001	0.007
Spline(3)	-0.004	0.000	0.000	0.001	0.001	0.086

<i>Control variables</i>						
Balance of military forc.	-1.625	0.583	0.005	-1.482	0.504	0.003
Major power	2.690	0.231	0.000	1.361	0.275	0.000
Distance	-0.258	0.132	0.050	0.109	0.123	0.375
Constant	-0.612	1.123	0.586	-4.663	0.926	0.000
Number of observations	42,461			39,813		

*Chiozza uses the number of years since the last conflict, we use the number of years since the last war.

Notes: Parameters are estimated using King and Zeng's Relogit program; weighting option used with robust standard errors and clustering by dyad; all tests are two-tailed.

On the other hand, *Table 2* does reveal some slight differences between the two models. Unlike Chiozza's findings, our model suggests that the years since the end of the Cold War have *not* witnessed a decrease in the likelihood of war between two countries in a dyad; quite the contrary, the coefficient of POST-COLD WAR PERIOD is there positive (albeit, like is the case in Chiozza's model, insignificant). In addition, the effects of MODERNIZATION and DISTANCE are rendered insignificant when the dependent variable is switched from KOSIMO to WAR. The same goes for the interaction variable between REGIME TYPE and INTERCIVILIZATION DYAD.⁵² One should also note that the interaction effects of DIFFERENT COLD WAR BLOC and BORDER are positive and significant, thus counteracting the negative effect of belonging to an inter-civilizational dyad. This implies that dyads comprising two states of different civilizational status were more prone to war than same-civilization dyads when they also belonged to opposing sides of the East-West divide and/or shared a common border.

Testing hypothesis 2: external participants

As a test of Huntington's controversial predictions, the models above are associated with at least one (but likely two) potentially significant, perhaps even invalidating, problem. In *Table 2*, only *direct* participants to a conflict/war are given the value 1 on the dependent variable. This means that all other military intervening parties (where such exist) are disregarded as participants. Yet, according to public international law an intervention is one state's interference in another state's affairs⁵³ – in this case through the use of military force. The 1991 Gulf War is illustrative of the particular coding dilemma one might encounter in this respect. In the Kosimo data, only the USA-Iraq dyad is coded as WAR=1, even if the intervening party was a coalition of several states, the majority of which belonged to a civilization different from Iraq's. Suspecting

⁵² We must keep in mind, however, that the number of cases for which Y=1 is smaller for WAR than for KOSIMO.

⁵³ Michael Akehurst and Peter Malanczuk, *Akehurst's Modern Introduction to International Law* (London: Routledge, 2002).

that such a simplification might indeed mask potentially important relationships, we wanted to see if the results changed if we also included (i.e., coded as 1 on the dependent) *all* relevant dyads of warring parties – including those involving intervening nations that were seemingly not leading belligerents – into a new variable called WAR INCLUDING EXTERNAL PARTIES.⁵⁴ Second, we also wanted to take advantage of the availability of more recent data, particularly considering Huntington's emphasis on the post-Cold War period. We therefore extended the analysis to encompass the period from 1946 to 2005, with data on wars occurring after 1997 being extracted from the Uppsala data on Armed Conflicts 1946-2004.⁵⁵

Unfortunately, however, we are unable to specify a full model that includes other independent variables as well, so we cannot – other than in a tentative way – assess our second hypothesis, that if one includes all feuding parties, inter-civilizational dyads are more likely to be involved in war. This is due to Chiozza's specific choice of method; he randomly selected only 10 percent of the dyads with the value 0 on KOSIMO and consequently only researched the *X* variables for these dyads (along with those coded as 1). Because we do not have data on the *X* variables of many of the dyads included in WAR INCLUDING EXTERNAL PARTIES, rendering any multivariate regression analysis meaningless, we therefore only show *frequencies* for our new dependent variable.⁵⁶

In any case, as is evident in *Figures 1-2*, the proportion of inter-civilizational dyads increases rather markedly when all military intervening parties are included. Granted, this is not to say that inter-civilizational dyads have a greater propensity for war than intra-civilizational dyads, *ceteris paribus*; rather, we cannot, without data on other pertinent independent variables, conclude that this is so – just as we cannot conclude that it isn't so. What we can say, however, is that empirical analyses of the Clash of Civilization thesis that altogether disregard the warring role of coalition or alliance members in grand coalitions and alliances that go to war under the more or less explicit leadership of one nation, probably too heavily stack the odds favoring the alternative hypothesis – that there does not exist any Clash of Civilizations. Indeed, Huntington himself argued that different civilizations are led by their respective core states, a role that for the Western civilization is arguably bestowed on the United States, whose ordering function implies that it supports and disciplines – and, perhaps, lure into battle – the less weighty states within its

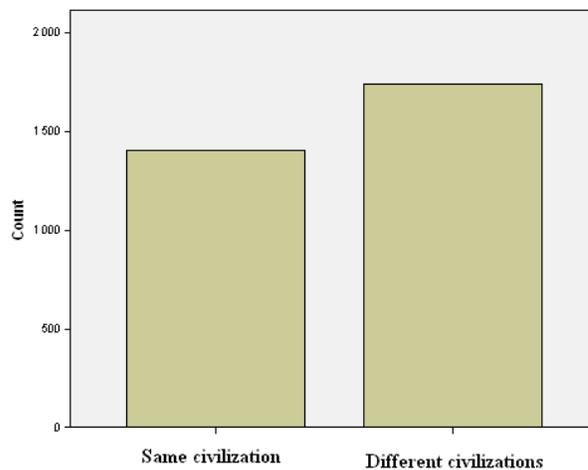
⁵⁴ We have included unilateral action by individual governments, ad-hoc "coalitions of the willing," and UN-mandated actions. We have not, however, included intervening parties operating under the U.N. flag.

⁵⁵ See: Nils P. Gleditsch, Peter Wallenstein, Mikael Eriksson, Margareta Sollenberg and Håvard Strand, "Armed Conflict 1946-2001: A New Dataset", *Journal of Peace Research*, 39 (2002), pp. 615-637. The Uppsala data set was downloaded from PRIO (International Peace Research Institute, Oslo), at <http://www.prio.no>.

⁵⁶ For the frequency analysis, we employed data containing all the dyads (400,165) that Chiozza extracted from the Kosimo data set. We then proceeded to include all external military intervening parties for the dyads coded as being at war in the original Kosimo data. We also included the direct-parties dyads, and we made new dyads for wars being waged after 1997. The Kosimo data set follows the decision rule that "the beginning of a conflict is the point when the initiator or aggressor formulates demands and pushes them with certain instruments" (see <http://www.hiik.de>).

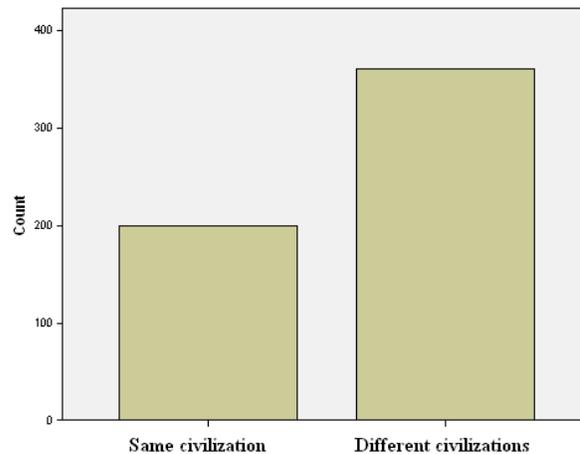
civilization. But the logical corollary of us drawing from this the conclusion that the core states' allies in battle are unfit to be counted as warring parties, would be, or to this effect one might certainly argue, to disregard these weaker nations' participation in *non-warring* dyads as well. Whatever is the "correct" thing to do, the authors of the present study are also guilty of some negligence – even if for the mundane reason of a lack of data. But we are nonetheless inclined to believe that *Figures 1-2* tentatively suggest that it might be of relevance how "combatants" are defined. At the very least, we believe that the issue deserves to be explored further in future research.

Figure 1. Chiozza's conflict variable (KOSIMO), 1946-1997



Notes: N=3,142; intra-civilizational conflict=1,406 (44,7%); inter-civilizational conflict=1,736 (55,3%).

Figure 2. Our war variable (WAR), including external military intervening parties, 1946-2005



Notes: N=559; intra-civilizational war=199 (35,6%); inter-civilizational war=360 (64,4%).

The logistic regression analysis displayed in *Table 2* did not yield any evidence to suggest that inter-civilizational military clashes were comparatively rife after 1989; the coefficient of the interaction variable between INTERCIVILIZATION DYAD and POST-COLD WAR PERIOD was insignificant. Nonetheless, it is important to keep in mind that these data only cover the period up to 1997, and that they do not code all military intervening parties as states at war. To supplement that analysis, the frequency analysis in *Table 3* exhibits dyads at war (where all military intervening parties are coded as 1 on the dependent variable) according to time period, including the period 1990-2005 (again with numbers for the most recent years based on the Uppsala data on Armed Conflicts, 1946-2004). From the table we learn that the number of inter-civilizational dyads at war has, in fact, *decreased* since the end of the Cold War. However, this reduction is proportionally smaller than the corresponding reduction for intra-civilizational dyads, when compared to the preceding period 1975-1989. As it turns out, interstate war has *in general* become less typical in recent years, although this reduction does not apply, as much, to civilizational wars as it does to wars comprising countries belonging to the same civilization. While we obviously cannot draw any definite conclusions regarding Huntington's thesis from these numbers either, again we are inclined to state that they might, at least conceivably, reflect a possible commencing pattern that is at least worthwhile keeping in mind for future research on interstate (and indeed also intrastate) warfare.

Table 3. Dyads at war by time period (including military intervening states)

	Intra-civilizational dyad	Inter-civilizational dyad	Total
1946 – 1959	14 (7.3 %)	38 (11.6 %)	52 (10.0 %)
1960 – 1974	40 (20.7 %)	130 (39.5 %)	170 (32.6 %)
1975 – 1989	80 (41.4 %)	84 (25.5 %)	164 (31.4 %)
1990 – 2005	59 (30.6 %)	77 (23.4 %)	136 (26.0 %)
Total	193 (100 %)	329 (100 %)	522 (100 %)

Testing hypothesis 3: the escalatory potential of inter-civilizational conflicts

Our third hypothesis – that inter-civilizational dyads already in conflict have a greater potential of escalating into war – can be tested by more sophisticated means than through the use of simple frequency analysis. This is especially fortunate given the emphasis Huntington places on the notion of the *escalatory potential* of inter-civilizational disputes, a potential that not least stems from the disposition of “other states and groups from these civilizations [to] rally to the support of their ‘kin countries’.”⁵⁷ In inter-civilizational conflicts, fundamental issues of identity are at stake, and the conflict might well be conceived of in terms of a battle between “us” and “them.”⁵⁸ Huntington even claims that any decisive military victory by one of the parties to such a conflict increases the likelihood of genocide – and, as we have alluded to earlier, that the “next world war, if there is one, will be a war between civilizations.”⁵⁹

To test this hypothesis, we use, as when we tested the first hypothesis, King and Zeng's rare-events logit model, but here we include in the analysis only those units coded as being in a state of conflict. The dependent variable, WAR, is the same in *Table 4* as in *Table 2*: dyads in a state of war (but not including external military intervening parties). (Here, too, we also ran a sensitivity model using binary logistics, obtaining similar results as those reported in *Table 4*.)

Table 4. The effect of inter-civilizational dyads on WAR for dyads already in a state of conflict

Variables	b	se(b)	p-value
Intercivilization dyad	-1.387	0.659	0.035
Post-Cold War period	0.573	0.459	0.212
Different Cold War bloc	0.137	0.282	0.627
Border	0.777	0.304	0.010
Regime type	-0.075	0.031	0.016
Modernization	-0.443	1.219	0.716
<i>Interaction effects with intercivilization dyad</i>			

⁵⁷ Huntington, *The Clash of Civilizations*, p. 28.

⁵⁸ Huntington, *The Clash of Civilizations*, p. 252.

⁵⁹ Huntington, “The Clash of Civilizations?”, p. 39.

Variables	b	se(b)	p-value
Post-Cold War period	-0.061	0.659	0.926
Different Cold War bloc	0.645	0.456	0.157
Border	0.858	0.393	0.029
Regime type	-0.007	0.040	0.852
Modernization	2.966	1.729	0.086
<i>Temporal dependence</i>			
Years since war	-2.324	0.292	0.000
Spline(1)	-0.085	0.012	0.000
Spline(2)	0.025	0.004	0.000
Spline(3)	-0.003	0.001	0.000
<i>Control variables</i>			
Balance of military forces	-0.974	0.743	0.190
Major power	-0.642	0.281	0.022
Distance	0.418	0.094	0.000
Constant	-3.168	0.915	0.001
Number of observations	3,138		

Notes: Parameters are estimated using King and Zeng's Relogit program; weighting option used with robust standard errors and clustering by dyad; all tests are two-tailed.

Table 4 informs us that here, too, the effect of INTERCIVILIZATION DYAD on the dependent variable is negative and significant: dyads whose members belong to different civilizations are actually *less* prone to experiencing conflict escalation. Our third hypothesis is hence rejected.

It should, however, be noted that unreported sensitivity analysis reveals that if the interaction variables are excluded from the analysis, inter-civilizational dyads actually *increases* the probability of war in a population of dyads already in a state of conflict (though this effect is not significant). This result ensues simply because the interaction effects by themselves increase the propensity for war for inter-civilizational dyads relative to intra-civilization dyads. But there are nonetheless sound reasons for including the interaction variables, as they enable us to check which effects of the explanatory variables are unique to the inter-civilizational dyads. Thus our conclusion stands: the third hypothesis is rejected.

Two, by now familiar, caveats are nonetheless in order. First, in this analysis we have used the Kosimo data, which do not code external intervening parties to a military conflict as participants in war (and neither are they coded as participants in lower-level conflicts). We thereby run the severe risk of underestimating the explanatory power of Huntington's thesis about the escalatory potential of civilizational conflicts. Second, drawing definite conclusions valid for a period for which data are only available for seven or eight years (out of a total of about 20 post-Cold War years) is at best inadvisable. In short, while we do reject this hypothesis, we do so without being fully satisfied.

Conclusion

Having taken as its point of departure, and sought to further and improve on, the well-researched article by Giacomo Chiozza, the present paper has tested three specific hypotheses that could conceivably cast some light on the extent to which Samuel P. Huntington's (in)famous Clash of Civilizations thesis carries some truth. Succinctly put, the rare-events logit model we ran failed to yield much proof that civilizations clash. First, corroborating Chiozza's findings, inter-civilizational dyads are *less*, not *more*, likely to be involved in war than intra-civilizational dyads. And second, inter-civilizational conflicts do not have a greater probability of escalating into a state of war than do conflicts between participants belonging to the same civilization. Yet, one of our hypotheses did in fact receive some support, albeit only of a tentative nature: When we coded as warring parties all states intervening in a conflict (and lengthened the time period covered), the relative prevalence of inter-civilizational war dyads increased substantially. This result, however, stemmed from mere frequency analysis and should therefore be interpreted with due caution. Taken as a whole, the results from our study lend support to Huntington's critics.

At the same time, our empirical analyses, and the surrounding discussion, directly or indirectly raise some potentially important questions regarding particular quandaries associated with past (and future) empirical tests of Huntington's thesis. First and obviously, the dependent variable matters. We are inclined to argue quite vigorously that the main focus, if one is to stay as close as possible to the gist of Huntington's contention, should be on war and armed conflict, as opposed to lower-level, non-violent crises and disputes. (It is also worth pointing out that Huntington's argument also encompasses inter-civilization *intrastate* warfare, even if our data do not.)

Second, scholars (ourselves included) should keep in mind – and be very explicit about the fact – that for Huntington, the Clash of Civilizations thesis is not necessarily so much an explanation and prediction of differences in the sheer numbers of inter-civilizational violent conflicts than an account about why the former type of clashes tends to be more intense, more serious, and more bloody. To be sure, focusing on sheer numbers is the prerogative and speciality of the quantitatively-oriented analyst and this study certainly falls into that category. But to the extent that Huntington was primarily preoccupied with analyzing and explaining a very small population of only the most grisly wars, the numbers and coefficients extracted from large-N

studies might tell us nothing about the truth and predictive power that may or may not lie inherent in Huntington's thesis. Granted, he does hold that inter-civilizational conflicts "will be more frequent ... than ... conflicts between groups in the same civilization,"⁶⁰ but this statement constitutes but one part of a broader array of propositions on which the Clash of Civilization thesis is founded. Or, put differently, we cannot, based solely on the analyses presented in this paper, refute the thesis as a whole.

Third, scholars need to deliberate quite profoundly on some key issues related to coding. This paper has argued the utility, and perhaps necessity, of coding all of the participants – and not only the main protagonists – in a war as being directly involved in the conflict. This is a particularly important point considering that recent years have seen several multinational coalitions waging war in foreign lands. Our study has, moreover, yielded some tentative evidence to suggest that such a broader conception of what is meant by being a "participant in war" might also change our assessment of Huntington's argument; the frequency analysis performed here revealed that the numbers are indeed altered somewhat, in Huntington's favour, when all external intervening parties are considered as states at war. (One might also consider the possibility of "promoting" some past colonial states to civilizational status in studies of interstate conflict, given their *de facto* independence at the time of the many (civilizational) wars of liberation.)

Finally, and perhaps most importantly, future research on this subject should, we believe, be devoted more strongly to the post-Cold War period, especially given the increasing availability of data – not to mention the sheer passing of time. Here, we have only just scraped the surface of this issue; even though the frequency analysis presented in *Table 3* (and, to some extent, in *Figures 1-2*) reveals that the number of inter-civilizational dyads at war has actually decreased since the end of the Cold War, this reduction is proportionally smaller than the corresponding reduction for intra-civilization dyads. But as yet, the availability of data is insufficient to let us reach any firm conclusions on this score (and the statistical analyses reported in *Tables 2* and *4* indicated no change after 1989). In any case, future research would be well-advised to investigate this matter further. We should keep in mind that Huntington was adamant that his "theory" was geared toward explaining the future – the post-Cold War era, an era during which, he so famously claimed, "the most dangerous conflicts will arise between people belonging to different cultures or civilizations."⁶¹

⁶⁰ Huntington, "The Clash of Civilizations?", p.48.

⁶¹ Huntington, *The Clash of Civilizations*, p.28.