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Cross-cultural dimensions of meaning in the evaluation of events in world history?

Perceptions of historical calamities and progress in cross-cultural data from 30 societies

James H. Liu, Victoria University of Wellington, New Zealand
Dario Paez, University of the Basque Country, Spain
Katja Hanke, Victoria University of Wellington
Alberto Rosa, Autonomous University of Madrid, Spain
Denis J. Hilton, University of Toulouse II, France
Chris G. Sibley, University of Auckland, New Zealand
Rosa Cabecinhas, University of Minho, Portugal
Franklin Zaromb, Washington University, USA
Ilya E. Garber, Saratov State Socio-economic University, Russia
Chan-Hoong Leong, National University of Singapore, Singapore
Gail Moloney, Southern Cross University, Australia
Velichko Valchev, Tilburg University, Netherlands
Cecilia Gastardo-Conaco, University of the Philippines-Diliman, Philippines
Li-Li Huang, National Tsing-hwa University, Taiwan
Ai-Hwa Quek, University of Malaya-Kuala Lumpur, Malaysia
Elza Techio, Tiradentes University, Brazil
Ragini Sen, Logistics, India
Yvette van Osch, Tilburg University, Netherlands
Hamdi Muluk, University of Indonesia, Indonesia
Wolfgang Wagner, Johannes Kepler University, Austria
Feixue Wang, Sun-Yat-Sen University, China
Sammyh Khan, Victoria University of Wellington, New Zealand
Laurent Licata & Olivier Klein, Université Libre de Bruxelles, Belgium
János László and Márta Fülöp, Hungarian Academy of Sciences, Hungary
Jacky Chau-kiu Cheung & Xiaodong Yue, City University of Hong Kong, China
Samia Ben Youssef, Tunisia
Uichol Kim & Youngshin Park, Inha University, Korea
Jen Puch-Bouwman & Katayoun Hassall, University of the South Pacific, Fiji
John Adair & Lauren Unik, University of Manitoba, Canada
Dario Spini & Karine Henchoz, University of Lausanne, Switzerland
Gisela Böhm, University of Bergen, Norway
Marcus Selart, NHH, Norway
Hans-Peter Erb & Deborah Felicitas Thoben, Helmut Schmidt University, Germany
Giovanna Leone & Tiziana Mastrovito, University of Rome, Italy
Tomohide Atsumi and Ko-ichi Suwa, Osaka University, Japan

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Address correspondence to:
Dr. James H. Liu
Centre for Applied Cross Cultural Research
School of Psychology
PO Box 600
Victoria University of Wellington
Wellington, New Zealand
Email: james.liu@vuw.ac.nz
FAX: +64-4-463-5402

ABSTRACT

The universality versus culture specificity of quantitative evaluations (negative-positive) of 40 events in world history was addressed using World History Survey data collected from 5800 university students in 30 countries/societies. Multidimensional scaling using generalized procrustean analysis indicated poor fit of data from the 30 countries to an overall mean configuration, indicating lack of universal agreement as to the associational meaning of events in world history. Hierarchical cluster analysis identified one Western and two non-Western country clusters for which adequate multidimensional fit was obtained after item deletions. A two dimensional solution for the 3 country clusters was identified, where the primary dimension was historical calamities versus progress, and a weak second dimension was modernity versus resistance to modernity. Factor analysis further reduced the item inventory to identify a single concept with structural equivalence across cultures, Historical Calamities, which included man-made and natural, intentional and unintentional, predominantly violent but also non-violent calamities. Less robust factors were tentatively named as Historical Progress and Historical Resistance to Oppression. Historical Calamities and Historical Progress were at the individual level both significant and independent predictors of willingness to fight for one's country in a hierarchical linear model that also identified significant country-level variation in these relationships. Consensus around calamity but disagreement as to what constitutes historical progress is discussed in relation to the political culture of nations and lay perceptions of history as catastrophe.

Key Words: cross-cultural dimensions of meaning, evaluation of historical events, perceptions of history, World History Survey, Historical Calamities, Historical Progress, Historical Resistance to Oppression, willingness to fight for one's country.

Cross-cultural dimensions of meaning in the evaluation of events in world history?

Perceptions of historical calamities and progress in cross-cultural data from 30 societies

A major contribution of cross-cultural psychology to the global science of psychology has been the identification of dimensions of cultural variation on which national cultures can be located. Two of the most sophisticated investigations of this type have converged on the finding that while cultures may differ on average as to the extent that members endorse certain values (Schwartz, 1992) or beliefs (Leung & Bond, 2004), there is substantial universality in the associational meaning of important concepts across cultures. In the domain of values for example, Schwartz (1992) found good agreement across 11 of 12 national cultures as to which values were compatible (i.e., positively correlated) or incompatible (negatively correlated)[1] on a multidimensional space consisting of two dimensions. In the domain of social axioms or context-free general beliefs, Leung and Bond (2004) identified a pan-cultural five factor structure, where specific beliefs consistently correlated together on the same general conceptual factors across cultures. These findings enable (1) systematic classification of cultures into "regions" of psychological similarity and dissimilarity, and (2) facilitate the prediction of behavior across cultures, both at the individual and culture (or country) level. Given the benefits of such an approach, a primary goal of the current research is to ascertain whether there are similarly universal dimensions of meaning for the evaluation of events in world history (Liu et al., 2005, in press; Pennebaker et al., 2006). In addition, we examine whether concepts constructed from historical evaluations are able to predict citizens' willingness to fight for their country, an important aspect of national political cultures (e.g., Bar-Tal, 2001).

Given that most contemporary instances of large scale intergroup violence involve national, ethnic, or religious cultures, it is surprising that the intersection between culture and

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[1] The exception being China where there were substantial mismatches between theory and empirical findings, see Schwartz (1992) p. 28, and p. 31.

group conflict is sparsely theorized (Hilton & Liu, 2008 but see Brewer & Yuki, 2007). To fill this gap, Liu and colleagues (Liu & Hilton, 2005; Liu & László, 2007; Liu & Sibley, in press) have argued that history furnishes raw materials that are communicated through interpersonal and institutional channels to produce symbolic representations consisting of narratives and iconic images that maintain continuity between a people's past, present, and future (see also Wertsch, 2002; László, J., Ehmann, B. and Imre, O., 2002). They argue that social representations (Moscovici, 1988) of history provide important symbolic reserves that can be mobilized to help define and redefine national political cultures as they cope with new challenges (Wagner, Kronberger, & Seifert, 2002; Liu & Hilton, 2005). Much research to date has focused on articulating the function of culturally unique symbols like the Treaty of Waitangi in New Zealand (Liu, Wilson, McClure, & Higgins, 1999) that underpins conceptions of a bicultural national identity (Sibley & Liu, 2007) or the February 28th incident in Taiwan (Huang, Liu, & Chang, 2004) that provides fuel for Taiwanese desires for sovereignty. These studies suggest that social representations of history furnish the symbolic basis for unique aspects of political culture within nations that are causally connected to present-day conflicts/prejudice and political decisions about them (Sibley, Liu, Duckitt, & Khan, 2008). The ethnocentrism inherent in the construction of national historical narratives (Liu & Hilton, 2005; Paez & Liu, in press) leaves room for doubt as to whether any universal perception of the meaning of world history is even possible. Rather, each nation might regard different events as central, and even if there is agreement about the centrality of an event, they might evaluate its meaning differently (see Liu et al., 2005, p. 188).

On the other hand, Liu and colleagues (2005; in press-a) have used open-ended nominations to determine the most important figures and events in world history from 24 societies and found that across cultures, (1) world history is a story about politics and war (especially World War II and Hitler), (2) focused on the recent past (e.g. the last hundred years), and (3) characterized by Eurocentrism tempered by nationalism. However, using open-ended

questions did not allow evaluation of the associative meaning of events in world history. Is there a deeper, universal structure to the evaluation of important events in world history, or are historical events uniquely perceived through cultural lenses? Would a temporal structure emerge with distance in time forming a crucial dimension, or could there be a content structure separating politics and war from other events? Unlike values (Schwartz, 1992), there is not a rich psychological literature on perceptions of history to guide theory construction. Professional historians have proposed numerous theories of history, but these accounts are more controversial than consensual (e.g., Great Man versus Marxist theories, unidirectional progress versus cyclical change, see Blanco & Rosa, 1997). Furthermore, there are fundamental differences between professional and lay conceptions of world history (see Liu et al., 2005, p. 187; Liu & Hilton, 2005, p. 541). Ordinary people may be considered experts at receiving and transmitting their culture's values or general beliefs, but only particular social categories, like politicians and professional historians might be expert at selectively utilizing histories to explain, justify, and construct agenda for present-day political situations (see Reicher & Hopkins, 2001)—hence, there might be less coherence or constraint in lay people's understandings of history. Hence our program to investigate whether there are universal dimensions in the evaluation of historical events is exploratory. We have no a priori hypotheses, only rudimentary ideas about factors that might shape the structure of these perceptions, like the centrality of WWII, the impact of recency, and the tension between nationalistic versus Eurocentric conceptions of history.

This is not to say that our approach is a-theoretical. Rather, our theoretical approach allows us to provide an alternative treatment for historical events that are NOT universal even as we search for universal dimensions of meaning. Regardless of the structure of lay perceptions of world history, we have a functional theory about the preeminent role of the collective remembering of warfare in national political cultures. A classic study by Archer and Gardner (1984) using cross-national archival data after WWII found that combatant nations, especially victorious ones with high casualty rates, were more likely to experience increases in homicide

rates compared to control nations, even after accounting for economic deprivation, civil unrest, or returning male combatants. Building on this using their own country-level cross-cultural data, Paez et al. (2008) found that free recall of WWII (but not WWI) as important was positively correlated with both willingness to fight in future conflicts for one's country and high power distance (Paez et al., 2008). Hence it appears that the collective remembering of recent wars as just or necessary tends to legitimize the use of violence in society, and that this may be connected to national political cultures where high power distance "promotes differences in power and hierarchical roles emphasizing obedience and respect for authorities and the legitimacy of using power to attain goals, including in-group or national goals" (Paez et al., p. 375). It is an open question whether these associations will be restricted to WWII, as Paez et al. (2008) reported using a relatively limited data set, or be more broadly related to dimensions of historical perception. So unlike in other domains, a failure to find universal dimensions of historical perception does not undermine the theory of history and identity, but it would be important to know whether specific events or overall perceptions influence action tendencies.

To summarize, these are the two initial parallel goals of the current investigation:

Goal 1. To ascertain whether there are universal dimensions in the evaluation of historical events across cultures.

Goal 2. To determine whether these dimensions can be used to construct cross-culturally valid scales that predict willingness to fight for one's country beyond the specific evaluation of WWII.

More generally, we open a new avenue of inquiry into the process and consequences of excluding specific items that lack universal meaning from cross-cultural inventories. For example, Leung and Bond (2004, p. 133) began with 182 items and reduced this to a final inventory of 60 items in order to achieve a replicable 5 factor structure of social axioms. Schwartz (1992) began from the established base of the 36 item Rokeach Values Survey and does not detail how he added items for his final inventory of 56 values. We believe that these

differences in item selection and elimination are highly informative. Values are a constrained domain, where all human beings face similar questions about how to prioritize concerns about biological, social, and group based needs (Schwartz, 1992). Item selection and elimination in the values domain can therefore proceed in a more theory-driven manner, whereas the realm of social axioms is constrained only by linguistic expressions (A is related to B) and human imagination. Although Leung and Bond (2004) do not provide further analyses of items that were excluded from their final item inventories, we surmise that like historical events, there might be particular social axioms that do not fit into a universal factor structure but have important culture-specific impact.

As different cultures rub shoulders with one another on an increasingly frequent basis, fundamental miscommunication as to the basic meaning of important historical symbols is becoming more of a problem. For instance, the United States has been excoriated by other countries for invading Afghanistan and Iraq following the 9-11 terrorist attacks (Pew Reports, 2006) and subsequently lost considerable international prestige (Liu et al., in press-a; in press-b). But it may be that 9-11 has fundamentally different associative meanings for Americans compared to citizens of other countries that rendered these political actions reasonable or even necessary to Americans in a way that is incomprehensible to citizens of other states. Similarly, the Nanjing Massacre may carry associative meanings for mainland Chinese that bring it into fundamental miscommunication and symbolic conflict with neighboring nationalities like the Japanese (Liu & Atsumi, 2008).

Given that we allow for both culture-general and culture-specific effects for the perception of world history, specifying criteria for item generation is critical to identifying not only meaningful dimensions of cross-cultural variation, but historical events with potentially global implications that cannot fit within a universal structure of associative meaning. Given the lack of theoretical consensus, the primary criterion we used was prior empirical research. We included in the event inventory of the World History Survey all events nominated in the top ten

by two or more cultures as reported in Liu et al. (2005) and (in press-a)[2]. This produced a list of 31 events (see Table 2) that was then augmented by a few events chosen for specific theoretical purposes: the Foundation of the United Nations, Decolonization, and the Rise of Islamic Civilization were only nominated in 1 country, but were deemed sufficiently important that they were included. The 30 Years War was a conflict between Catholics and Protestants that decimated Germany in the 17th century that together with the Invention of the Printing Press were chosen to represent events of vast importance in previous eras that seem to not be salient in open-ended nominations. The Rise of the European Union, the Digital Age (Computers, internet) and Global Warming were chosen as events of signal importance to the future that may have been under-estimated. Finally, the Creation/Evolution of Humanity was chosen because the empirical survey disallowed events of greater than 1000 years antiquity, and we wanted to better ascertain the place given to prehistory in overall ratings of world history. This event inventory is both comprehensive and content rich, and allows us to articulate the remaining (less central) goals for investigation:

Sub-Goal 3. To articulate empirical criteria for item deletion from cross-cultural survey inventories, and generate an inventory of culturally significant events in world history that lack universal meaning.

Sub-Goal 4. To ascertain whether among these historical events deleted from a general cross-cultural inventory there might be events influencing willingness to fight in particular cultures (particularly the superpowers of the United States and China).

METHOD

Participants

Data were collected from 6023 university students from 30 countries (Australia, Austria, Belgium, Brazil, Bulgaria, Canada, China, Colombia, Fiji, Germany, Hong Kong, Hungary,

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[2] The sole exception was the 1990s Gulf War, because it was deemed repetitive to other Middle Eastern conflicts and appeared only in the 1990s dataset and not in the 2000s data set. Some items, like Rise of Ancient Civilizations, and Foundation of Major Religions were amalgamated from more specific nominations.

India, Indonesia, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Philippines, Portugal, Russia, Singapore, South Korea, Switzerland, Taiwan, Tunisia, USA). Please see Table 1 for an overview of participants (only citizens were retained). Social science students were preferred, and specialists majoring in history were avoided. Each country[3] was subjected to a missing data analysis and cases with more than 33% missing values were excluded from the overall analyses (99 cases). We calculated for each participant the individual standard deviation across all relevant items (40 historical events and figures, evaluation and importance ratings). Participants who had a standard deviation of 0 (indicating no variability in responses) were also excluded from the overall sample (124 cases).

Thus, participants were in total 5800 university students (61.1% were female, 35.9% were male, and 3% did not indicate their gender). Participants' age ranged from 16 to 66 years of age (M = 21.39, SD = 4.47).

Insert Table 1 about here

Procedure and Materials

The questionnaire was administered to university students from a range of different academic disciplines. The survey consisted of two sets of forty historical events and forty historical figures. All questionnaires were translated from their original language into the language prevalent in the society of administration and back-translated to ensure correct translation. The participants were asked to evaluate first 40 historical events and then 40 historical figures on a 7-Point-Likert Scale ranging from 'extremely negative' (1) to 'extremely positive' (7) followed by an importance rating from 'not at all important' (1) to 'extremely important' (7). We will focus only on the evaluation of the 40 events in this paper.

RESULTS

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[3] We use the terms country and nation interchangeably in this paper, as most of the societies in our survey are both countries and nations. Hong Kong is a society that has demonstrably distinct characteristics as a Special Administrative Region of China, and Taiwan is a sovereign society that is not recognized formally as such by most countries.

Normal Distribution

We examined the data for normality. Violations of normal distribution are indicated by skewness and kurtosis (Kline, 2005; West, Finch, & Curran, 1995). According to Kline (2005) skew values greater than 3.0 and kurtosis values larger than 10.0 indicate a problem with normality whereas West and colleagues (1995) argue for skew values greater than 2.0 and kurtosis values exceeding 7.0. Overall, there were no severe deviations from normal distribution using either of these criteria (see Table 2 for items sorted by descending means, SD, skewness and kurtosis).

Insert Table 2 about here

Multidimensional Scaling (MDS), Factor Analysis, and Scale Construction

Determining underlying dimensions of meaning. At the outset, we faced the problem of dealing with 30 configurations of raw data from 30 societies. According to Welkenhuysen-Gybels and van de Vijver (2001) when operating with so many different configurations, the likelihood is very high that many of the configurations will differ from one another and yield a very poor fit.

To confirm this, we initially employed an interval-level multidimensional scaling procedure (MDS) with proximity transformations for each country separately and across all countries using the individual level data. Therefore, we employed 31 MDS procedures, based on 30 countries and on one overall (using z-scores) from 1 up to 6-dimensional solutions. A representation in one dimension accounted for .74 of the dispersion (normalized raw stress .24, Tucker's coefficient of congruence = .87), for two dimensions .89, .11, and .95 respectively, for three dimensions .94, .06, .97, for four .96, .04, .98, for five .98, .02, .99 and finally for six .98, .02, .99. Subsequently, we performed generalized procrustes analysis (GPA; Borg & Groenen, 1997; Commandeur, 1991) to compare all configurations with one another simultaneously,

arbitrarily treating the overall data set as equivalent and homogenous (see also Welkenhuysen-Gybels & van de Vijver, 2001). As expected the centroid configuration could only account for 55% of the squared distances for 2 dimensions and even less for 3 dimensions (52%). This low level of congruence indicates a lack of universal fit across cultures in the evaluation of historical events.

A plausible alternative to universality is to identify homogenous partitions of societies that show similarities within a cluster. First we used hierarchical linear modelling (HLM) to ensure that there was sufficient country-level variation to justify formation of country clusters. Three sample items with medium variability were tested, with high mean (Digital Age), a medium mean (Age of Discovery), and low overall mean (Global Warming, see Table 2). For all three items, HLM detected large amounts of variation at the country-level that justified examining data aggregated at the country-level to search for homogenous clusters of countries. These indices are shown by the Intraclass Correlation Coefficents (ICCs) in Table 2. The ICCs provide an index of the expected correlation for evaluation of each historical event between two randomly selected people from the same nation. A higher ICC (ranging from 0 to 1) therefore indicates a higher proportion of consistency in variability accounted for at the between nations-level.

Therefore, we conducted a hierarchical cluster analysis using Ward's method to combine data sets into coherent groups. The cluster analysis converged on three clusters: a mainly Western (Australia, New Zealand, Norway, Belgium, Italy, Switzerland, Austria, Germany, Netherlands, Hungary, Portugal, Brazil, USA, and Bulgaria) and two mainly non-Western country clusters (first cluster: China, Colombia, Japan, Mexico, Taiwan, and Tunisia; second cluster: Canada, Fiji, Hong Kong, India, Philippines, Russia, Singapore, South Korea, Indonesia, and Malaysia).

We employed an interval-level multidimensional scaling procedure (MDS) with proximity transformations. Euclidean distances were calculated from z-transformed mean scores

of 40 evaluations of historical events (MDS between variables) using Proxscal in SPSS 14. We conducted one MDS for each cluster separately using the individual level data. Therefore, we employed 3 MDS procedures, based on 3 clusters (using z-scores) considering 1 up to 6-dimensional solutions. A representation in one dimension accounted for .74 of the dispersion (normalized raw stress .26, Tucker's coefficient of congruence = .87), for two dimensions .90, .10, and .95 respectively, for three dimensions .94, .06, .97, for four .97, .03, .98, for five .98, .02, .99 and finally for six .98, .02, .99. We examined the scree plot for the normalized raw stress that suggested a 2-dimensional solution, and chose the 2-dimensional solution as the most appropriate representation of the events.

Subsequently, we performed generalized procrustes analysis (GPA; Borg & Groenen, 1997; Commandeur, 1991). GPA was used to compare all 3 configurations with one another simultaneously. GPA is for MSD what procrustean target rotation is for factor analysis. GPA rotates the coordinates of all configurations in such a way that they maximally correspond to one another. Furthermore, GPA provides congruence indices at configuration and item level computed as the proportion of the squared distances accounted for by each cluster and for each item. Hence, we are able to detect items that do not fit well using the congruence measure at the item level. We reduced possible cross-cultural differences due to response sets etc. through standardising the means for each country separately before using the overall data set (van de Vijver & Leung, 1997). The initial centroid configuration accounted for 76% of the squared distances for 2 dimensions, a big improvement on the solution derived from the individual countries.

To improve fit, and to aim for a comparable structure across the three clusters, we detected items that had a poor fit using the ratio (0-1) between sum of squares fit per item divided by sum of squares total. We removed items that had a fit lower than .50 in three steps (see Table 3 for details). Some of these events are highly culture-specific, and probably not well known outside of the involved countries: Opium War (China, 9th c), Sino-Japanese War (1930s),

Partition of India and Pakistan, and perhaps the Russian Revolution(1917) as well given the decline in Communism as a global force. Other events are likely to have contested meanings and referents across cultures: Islam-Christian Wars/Crusades (11th -14th c), French Revolution, Women's Emancipation & Suffrage, Foundation of the major religions, and Age of Discovery / Colonization. It should be noted that these are items that do not fit well within the dimensional space solutions, which is quite different from the items that have consistent variability accounted for at the country-level by the ICC.

The total fit increased from .76 (40 events) to .90 (31 events) for the three cluster MSD solution (please see Figures 1-3 for MDS space for Western cluster, Non-Western Cluster 1 and Non-Western Cluster 2 and Table 3). We stopped here as we achieved a satisfactory total fit and had no items left below .50. While we gained a satisfactory proportion of fit through item deletions, we also lost culture-specific information by forcing an equivalent structure onto the data.

Insert Table 3 and Figures 1-3 about here

As can be seen from Figures 1-3, the location of events along the vertical axis was not only highly consistent across all three dimensional spaces, but also easily interpretable. This primary dimension of cross-cultural meaning in the evaluation of historical events distinguishes between historical calamities (wars, weapons of mass destruction, environmental disasters, terrorism, ideological conflict, economic depression) versus historical progress (technological, civilization, and social). It is remarkable that our sample of students did not distinguish sharply between human versus natural catastrophes, and that warfare, genocide and economic calamities tended to gather together. The second, horizontal dimension was less stable across clusters and harder to interpret. Tentatively, we speculate that it may have something to do with modernity and resistance to modernity. The events to the right side mainly concern the overthrow of hegemony and inequality in Western societies (the 30 Years War, the American Civil War,

American Independence, but also the Discovery of the Americas which only fits this interpretation from a settler, not an indigenous perspective). There were some events that did not hold consistent horizontal positions across the different dimensional solutions, like the Abolition of Slavery and Decolonization, suggesting that the meaning of these terms varied in different parts of the world. The other end of the horizontal dimension was anchored by China's Cultural Revolution, the Rise of Islamic Civilization, the Holocaust, and the Great Depression, all events that could be seen as some form of resistance or obstacle to Western forms of modernity. The second dimension is weak, and probably cannot bear careful scrutiny.

Scale Construction. In the next step we aimed for scales that had equivalent meaning across the 30 societies. Therefore, we employed the technique of factorial procrustean target rotation. We employed an exploratory factor analysis (EFA) with a principal components analysis followed by Varimax rotation in order to be able to identify factors that were structurally equivalent, to detect items that were not equivalent and to conduct procrustean target rotation subsequently (van de Vijver & Leung, 1997) where we used the overall sample as the norm. The EFA revealed a 3 factor structure across the three clusters. The scree test as well as parallel analysis suggested a 3 factor structure, although the overall proportion of explained variance was relatively low (35%). However, we assume that due to events elimination, we were losing information that potentially could have explained more variance in some regions. Nevertheless, using both the EFA inspecting the factor structure across the three clusters and procrustean target rotation to identify poorly fitting items after target rotation, we further reduced the set of events as seven of them did not fit well, because they had either cross-loadings, loadings on a different factor or a high square root of the mean squared difference per item after the target rotation: Sept 11 Bombing, Discovery of Americas, 30 Years War (17th c), Rise of Islamic Civilization, Invention of Printing Press, Rise of Ancient Civilizations, and Chinese Cultural Revolution (please see Table 4 for all excluded events).

It should be noted that some of these items anchored the previously described dimensional solutions, and so we can see the costs of item elimination to achieve equivalence in meaning. Like in the previous round of item elimination, the items either contained culture-specific content not well known globally (Chinese Cultural Revolution, 30 Years War), diffuse wordings (Rise of Ancient Civilizations), or have contested meanings (Sept 11, Discovery of Americas, Rise of Islamic Civilizations).

Insert Table 4 about here

We labeled the first, strongest factor as "Historical Calamities", the second factor as "Historical Progress" and the third factor as "Historical Resistance to Oppression" (please see Table 5 for details). The first factor was exactly the same as represented in the upper half of the dimensional space shown in Figures 1-3, with the exception of 9-11 which was deleted to achieve higher reliability. The Historical Calamities scale, which does not differentiate between human-made or natural, intentional or unintentional calamities, has robust reliabilities across country clusters and high inter-item correlations that suggest that this concept is meaningful across the 30 societies surveyed.

The second and third factors are less robust, as evidenced by scale reliabilities and by the inconsistent location of some items from these scales across the three dimensional spaces. The Historical Progress scale (see Table 5) includes technological and political events indicative of civilization advance in recent times, like the Digital Age, Man on the Moon, the foundation of the European Union and United Nations, but also the Creation/Evolution of Humanity. The weakest factor, Historical Resistance to Oppression, includes the two great American internal wars, the Abolition of Slavery and Decolonization, the Fall of the Berlin Wall/End of USSR, but also the Renaissance. The spread of items in all three scales across the horizontal dimension of historical representations seen in Figures 1-3 indicates how weak this second dimension was

compared to the first dimension. The inclusion of ancient items with recent items in the latter two scales seems to suggest that temporal constraint is not critical to these concepts.

Insert Table 5 about here

Multilevel analyses

Having created our historical concepts, we then turned to their use in predicting willingness to fight for one's country. We used hierarchical linear modeling(HLM) to test a model in which evaluations of WWII and September 11 predicted the willingness to fight in a future war (y_{ij}) of each participant (subscripted i) within each country or society (subscripted j). HLM is a powerful new statistical technique that calculates both individual-level(i) and society/country-level(j) contributions to variance in the dependent variable, and hence is ideally suited to modeling cross-cultural data.

We then extended this model to examine the unique effects of WWII and September 11 evaluations, and our new scales of Historical Calamities, Historical Progress, and Historical Resistance to Oppression. Following recommendations outlined by Enders and Tofighi (2007), evaluations of WWII (and all other predictors subsequently discussed) were group-mean centered in this analysis, because we were interested primarily in the associations between variables at the individual level (i.e., Level 1 associations). At Level 1, the equation predicting willingness to fight can be expressed as follows:

$$y_{ij} = \beta_{0j} + \beta_{1j}(\text{WWII evaluation}) + \beta_{2j}(\text{September 11}^{\text{th}} \text{ evaluations}) + r_{ij} \qquad \textbf{(1.0)}$$

where willingness to fight is expressed as a function of the intercept of the regression equation for each country or society (β_{0j}), the average slope for the effect of WWII evaluation (β_{1j}), September 11$^{\text{th}}$ (β_{2j}) and a Level 1 error term or residual (r_{ij}).

At Level 2 (the between countries or between societies level) this equation can be expressed as follows:

$$\text{Intercept} \quad \beta_{0j} = \gamma_{00} + u_{0j}$$

$$\text{WWII evaluations} \quad \beta_{1j} = \gamma_{10} + u_{1j}$$

$$\text{September 11}^{th} \quad \beta_{2j} = \gamma_{20} + u_{2j} \qquad \textbf{(2.0)}$$

where the γ-values represent the fixed-effect of each predictor and the us represent associated

Level 2 error terms (or the random part of the model). γ_{00} thus represents the average of the

intercepts for the regression models predicting willingness to fight across countries, and u_{0j}

represents variation in the intercepts across countries. γ_{10} represents the average of the slopes for

the relation between WWII evaluations and willingness to fight across countries, and u_{1j}

represents variation in the slopes of this effect across countries. γ_{20} represents the average of the

slopes for the relation between evaluations of September 11th and willingness to fight across

countries, and u_{2j} represents variation in the slopes of this effect across countries. Thus, this

model can be thought of as a regression model testing whether evaluations of WWII and

September 11th predict willingness to fight, while simultaneously modeling error involved with

sampling at both levels (i.e., across individuals within countries, and between

countries/societies).

We then extended this model by also including three additional more broad-bandwidth

predictors, evaluations of Historical Calamities, Historical Progress, and Historical Resistance.

At Level 1, this equation was expressed as follows:

$$y_{ij} = \beta_{0j} + \beta_{1j}(\text{WWII evaluation}) + \beta_{2j}(\text{September 11}^{th}) + \beta_{3j}(\text{Historical} \qquad \textbf{(1.1)}$$

$$\text{Calamities}) + \beta_{4j}(\text{Historical Progress}) + \beta_{5j}(\text{Historical Resistance}) + r_{ij}$$

As with the analysis described in equation 2.0, the level 2 model then specified that each

β coefficient was expressed as a function of a fixed and random component, as follows:

$$\text{Intercept} \quad \beta_{0j} = \gamma_{00} + u_{0j}$$

$$\text{WWII evaluations} \quad \beta_{1j} = \gamma_{10} + u_{1j}$$

$$\text{September 11} \quad \beta_{2j} = \gamma_{20} + u_{2j}$$

$$\text{Historical Calamities} \quad \beta_{3j} = \gamma_{30} + u_{3j}$$

$$\text{Historical Progress} \quad \beta_{4j} = \gamma_{40} + u_{4j}$$

$$\text{Historical Resistance} \quad \beta_{5j} = \gamma_{50} + u_{5j}$$

As before, γ_{10} represents the average of the slopes for the relation between WWII evaluations and willingness to fight across countries, and γ_{10} represents the average of the slopes for the relation between September 11 evaluations and willingness to fight across countries, controlling for the effects of Historical Calamities[4], Historical Progress, and Historical Resistance to oppression, and u_{1j} and u_{2j} represent respective variation in the slopes of the effects of WWII and September 11 evaluations on willingness to fight across countries. Likewise, γ_{30} represents the average of the slopes for the relation between Historical Calamities and willingness to fight across countries, controlling for all other predictors, and u_{3j} represents variation in the slopes of the effect of Historical Calamities on willingness to fight across countries. As with a normal (fixed-effects) regression, this analysis therefore allowed us to evaluate the unique effects of WWII evaluations, September 11, Historical Calamities, Historical Progress, and Historical Resistance to oppression on willingness to fight averaged across countries, while (unlike in a fixed effects regression) also recognizing that these slopes might vary across different countries or societies (as represented by the u terms assessing Level 2 error).

The γ-coefficients (intercept and slopes) for the fixed-effects parts of these models, and associated u-terms representing variation in slopes and intercepts across countries (random part of model) are presented in Table 6. As shown, evaluations of WWII significantly predicted an increased willingness to go to war when entered at Step 1 ($\gamma = .08$, $t = 2.83$, p $< .01$). The γ-coefficient for this effect can be interpreted as an unstandardized regression coefficient, and indicates that a one-unit increase in evaluations of WWII as positive predicted a .08 unit increase in willingness to fight for one's country (keeping in mind that both variables were measured on scales ranging from 1-7). Analyses of the random part of the model indicated that there was

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[4] Historical Calamities was computed both with and without WWII, and the results were not affected by its inclusion or exclusion

significant variation across countries in the slope for this effect ($u = .01, \chi^2(29) = 89.37, p < .01$).

Thus, while the slopes for this effect were heterogeneous across countries, of critical interest for

our purposes, the average slope across all countries was significant. Evaluations of September

11th, in contrast, did not predict unique variance in willingness to fight ($\gamma = -.03, t = -1.54$, p =

.14), and the slope for this effect did not differ significantly across countries ($u = .01, \chi^2(29) =$

$40.33, p = 08$).

As detailed in Equations 1.1 and 2.1, we entered Historical Calamities, Historical

Progress, and Historical Resistance as additional predictors at Step 2. This allowed us to examine

unique effects of WWII evaluations, September 11th evaluations, and these other three more

broad-bandwidth evaluative aspects of historical perceptions simultaneously. As shown in the

lower half of Table 6, evaluations of WWII ($\gamma = -.01, t = -.22$, p = .82) no longer predicted

willingness to fight after controlling for Historical Calamities, Historical Progress, and Historical

Resistance. Rather, this model indicated that more positive evaluations of Historical Calamities

($\gamma = .27, t = 2.56$, p = .02) and more positive evaluations of Historical Progress ($\gamma = .21, t = 4.96$,

p < .01) both uniquely predicted an increased willingness to fight for one's country (whereas

Historical Resistance to Oppression had little predictive value). It seems that evaluations of

WWII retained little to no predictive utility after controlling for evaluations of these more broad-

bandwidth aspects of historical evaluation. These coefficients for the fixed-effects part of the

model indicate that a one-unit increase in positivity of evaluations of Historical Calamities and

Progress in human history respectively predicted .27 and .21 unit increases in willingness to fight

for one's country. Finally, examination of the random part of the model (as shown in Table 6),

showed that slopes for both of these relations varied significantly. Thus, the magnitude of these

effects were not homogenous across countries/societies.

We also conducted additional analyses testing whether specific events that might be of

relevance to a particular country exerted more predictive utility there. This did not appear to be

the case for any of the events tested, including the Russian Revolution for Russia, the Partition of

India and Pakistan for India. For instance consistent with the multilevel (cross cultural) analyses, evaluations of September 11th did not significantly predict willingness to fight in the US when data for this nation was examined separately (β = -.11, t = -1.42, p = .16). Similarly, evaluations of the Sino-Japanese war did not predict unique variance in willingness to fight in China (β = -.02, t = -.15, p = .88). Controlling for WWII evaluations made no difference in either case.

Graphical Representations at the Country Level

Our final analyses involved country- or societal-level graphical representations of the historical concepts (and willingness to fight). As seen on the vertical axis of Figure 4, Non-Western societies almost without exception evaluated Historical Calamities much less negatively than Western societies (the sole "exception" being Russia, but there has been considerable debate about whether Russia is a Western society). The pattern of scores on the horizontal axis of Historical Progress is not as easy to interpret: the highest scoring countries (Portugal, China, Tunisia, and Bulgaria) are those that *aspire to* Historical Progress rather than having necessarily internalized the events contained within this concept. The lowest scoring societies (Malaysia, Singapore, Hong Kong, South Korea, Indonesia) are except for Switzerland modernizing Asian societies that have had difficult experiences emulating the largely Western ideals of historical progress represented in this concept. If we consider the diagonal between the two axes, China and Tunisia are two countries that rate Historical Progress highly, and do not see Historical Calamities as all that terrible, whereas at the other end of the diagonal, Switzerland, Norway, Australia, and New Zealand, all highly progressive and prosperous countries that do not rate Historical Progress that highly and consider Historical Calamities to be horrific. Brazil is at the middle of the diagonal, whereas furthest away from the diagonal Portugal rates progress highly and calamities as horrible whereas Malaysia does not rate calamities as horrific and does not consider progress to be that great. These data suggest that the structure and naming of our second factor as "Historical Progress" could use fine-tuning, as peoples could vary considerably in their subjective experiences with events that could be considered as "progress" (see Gibson &

Noret, in press). We are much more confident of the meaning of Historical Calamities across cultures, as this appears to fit in nicely with Inglehart and Baker's (2000) cross-cultural dimension of survival versus self-expression, with non-Western societies seeing Historical Calamities as part of the process of survival and progress, whereas Western societies see them as something horrible that they in their pleasantly self-expressive lives locate in an unthinkable past.

Insert Figure 4 about here

Country-level means for Historical Calamities (vertical axis) plotted against those for Willingness of Fight for One's Country (horizontal axis, see Figure 5) reinforce the interpretation above. The non-Western samples not only score higher on their evaluations of Historical Calamities, but the visible country-level correlation of this with Willingness to Fight along the diagonal shows that the non-Western samples tend also to be more willing to fight. Russia's location on this space is in line with non-Western rather than Western societies, whereas Japan's location is singularly low in Willingness to Fight (see Liu & Atsumi, 2008; Atsumi & Suwa, in press) compared to its relative acceptance of calamities[5].

Insert Figure 5 about here

DISCUSSION

Multidimensional scaling analyses indicated that no single universal dimensional space provided adequate fit for evaluations of events in world history across 30 societies. Hierarchical cluster analysis ascertained that an adequate 2-dimensional solution could be found by putting societies with relatively homogeneous patterns of associations between events into three clusters, one Western and two non-Western. Through item deletions, a single strong, almost universal dimension of evaluation was identified, distinguishing between historical calamities at one end and historical progress at the other; this dimension appeared in all of the more than 30

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[5] Visual representation of the country-level association between Historical Progress and Willingness to Fight is far less striking but available from the authors on request

dimensional solutions we examined. The second dimension, tentatively identified as modernity versus resistance to modernity, was both empirically and theoretically less robust; lack of consensus on this dimension thwarted identification of universal dimensions across the 30 societies analysed individually. Nevertheless, factor analysis and further item deletions indicated that three concepts could be identified with reasonably good structural equivalence across cultures.

The first, most powerful factor in the evaluation of events in world history across cultures is Historical Calamities, an inventory of disasters both man-made and natural, both intentional and unintentional, encompassing catastrophes of warfare, economic collapse, genocide, and terrorism. The second two factors represent the other end of the continuum from calamity to progress, but our names for them are tentative, Historical Progress and Historical Resistance to Oppression. Scale reliabilities and theoretical interpretation of these concepts are less than robust. They signal that while there is massive agreement across cultures as to what constitutes historical calamity, there far less consensus as to what constitutes progress. The items on the Historical Progress scale are mostly Western in origin, and it is understandable that different non-Western societies might have different opinions as to their merit, and the merit of following in their footsteps. Similarly, Historical Resistance would appear to be a relatively coherent concept to Western societies, but for non-Western societies, the symbolic meaning of events like the American Civil War and War of Independence and the Fall of the Berlin Wall/End of the USSR could be highly contested. As a whole, these patterns suggest limitations to lay knowledge, imagination, and beliefs about history: in both open-ended nominations (Liu et al., 2005, in press) and quantitative evaluations, they appear to have far more coherent conceptualizations of calamity than progress.

Despite these reservations, Historical Calamities and Historical Progress displayed functional utility in their ability to predict willingness to fight for one's country. Hierarchical Linear Modelling allows estimation of both regression slopes at the individual level as well as

providing an indication of the homogeneity or heterogeneity of these slopes across cultures. Using HLM, we found that Historical Calamities to be a powerful predictor of willingness to fight, and Historical Progress to be a good predictor after controlling for one another and the specific events of WW II and September 11. There was significant variation in slopes at the country-level, indicating that the relationship between our predictor variables and the dependent variable varied significantly across cultures. Replicating Paez et al. (2008), evaluations of WW II were significantly correlated to willingness to fight, but our additional analyses found that it had no independent predictive value after controlling for the broader bandwidth scales. September 11, by contrast, was not correlated with willingness to fight for one's country. Participants from Non-Western countries rated Historical Calamities as less horrific than Western countries, and they also reported more willingness to fight for their countries.

The finding that both a relatively less horrific rating of Historical Calamities, and a more positive rating of Historical Progress *both* contributed independently to predicting Willingness to Fight for one's Country was surprising. The results for Historical Calamities were consistent with previous research by Basabe and Valencia (2007) showing that societies with more materialistic, collectivist, and hierarchical values had less negative views towards socio-politically sanctioned violence and warfare. The shift to a post-materialistic society (Inglehart & Baker, 2000) is typically associated with a shift towards a representation of warfare that focuses on victims, suffering, and the meaningless of war (Rosoux, 2001). However, we found that a very mixed bag of societies strongly endorsed the historical items that formed a concept we called "Historical Progress": correlations suggested that members of these societies appeared to be *willing to fight in order to achieve progress*.

We were notably unable to find any singular events in world history that were able to uniquely predict willingness to fight for one's country beyond Historical Calamities and Historical Progress, even when we focused our attention on data from individual countries. So while there is heterogeneity in the relationship between our historical concepts and willingness to

fight, the evaluation of singular events in world history, like 9-11, the Sino-Japanese War, the Russian Revolution, or the Partition of India and Pakistan (in the USA, China, Russia, and India respectively) does not appear to add anything beyond these broad-bandwidth concepts. Finding culture-specific effects would probably require more in-depth probing of the meaning of these events as imbedded within the culture-specific context (Gibson & Noret, in press; Liu, Paez, Techio, Slawuta, Zlobina, & Cabecinhas, in press), and perhaps reference to a specific conflict.

During the process of analysis, we deleted 16 events or 40% of the original item inventory from our final scales. We used two separate criteria for item deletion, first fit indices derived from generalized procrustean analysis of multidimensional scaling solutions, and second measures of fit derived from both exploratory and generalized procrustean rotation factor analysis. The list of deleted events in Table 4 is worth examination. First, there is a set of events that appear to be culture-specific: these events, like the Opium War, 9-11, the Sino-Japanese War, the Russian Revolution, the Partition of India and Pakistan, and the Cultural Revolution, are critical for particular societies but less relevant across cultures. There is another set of events that would appear to have disputed or inconsistent meanings across cultures, like the Islam-Christian Wars, Women's Emancipation and Suffrage, the Age of Discovery/Colonization[6], the Discovery of the Americas, Rise of Islamic Civilization, and the French Revolution. There is another set of items where the referent of the event itself is not clear from the wording, like the Foundation of the Major Religions, the Rise of Ancient Civilizations, and the Invention of the Printing Press (where it is unknown whether participants were thinking about the Chinese invention or the European popularization that followed); these wordings were chosen to save space (e.g., rather than refer to Christianity and Islam with separate items), but in retrospect this may not have been wise. We consider this inventory of excluded events to be useful because (1) events of the first type could be explored more deeply in culture-specific studies, and (2) events of the second type could be explored more deeply in cross-cultural qualitative studies.

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[6] This was a problem even during the item wording phase, as for Portuguese the Age of Discovery is gloriously separate from the negative impacts of Colonization.

Representations of world history are not theoretically constrained in the same way as values or social axioms: rather, new events are always entering into and updating current representations because of a recency bias in collective remembering (Liu et al., 2005; Liu et al., in press). Furthermore, because of the mixture of ethnocentrism and Eurocentrism that permeates perceptions of world history, it may be difficult to identify universal perspectives on world history besides agreement on the nature of catastrophe. But acknowledgement of such limitations is itself a useful scientific advance. In the theory of history and identity articulated by Liu and Hilton (2005), history provides raw materials or a "symbolic reserve" that through a process of communication driven by the agenda of political elites is transformed into legitimizing ideologies and discourses that are both a powerful influence on political decisions and become enduring elements of political culture (see also Liu & Sibley, in press). The present study identifies for the first time a potential "symbolic reserve" of Historical Calamities that can be mobilized by political entrepreneurs (Reicher & Hopkins, 2000; Klein, Spears, & Reicher, 2007) in the international arena to justify and explain their future political agendas *across cultures*, whereas previous research focused only on country-specific events and discourses (e.g., Sibley et al., 2008; Liu et al., 1999). Historical Calamities, unlike the less coherent concepts of Historical Progress and Historical Resistance to Oppression, are likely to be understood in the same way across cultures, and thereby provide a useful platform of commonality from which to construct global political agenda against such future threats as global warming. Political entrepreneurs of the 21st century may find that they can mobilize their agendas for the future by appealing to rather broader notions of shared calamities (and to a lesser extend progress) rather than resorting to more ethnocentric notions of specific historical events of cultural significance.

Future research should re-examine the question of whether historical representations in general, and/or the glorification of past warfare in particular forms part of the political culture for a people. Paez et al. (2008) found at the country-level that the collective remembering of WW II but not WW I was related to willingness to fight, and suggested that "collective remembering of

war is event focused rather than a general cultural predisposition to glorify conflict" (p. 378). Using the World History Survey, we found not cultural predispositions to glorify conflict, but rather cultural variation in the degree to which Historical Calamities are perceived as horrific. Developing countries evaluated calamities as something that can and perhaps must be endured, compared to developed countries in the West that view calamities as "unthinkable". Just how far such a finding may contribute to a future understanding of the political cultures of nations is fruitful territory for future research.

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Table 1 *Description of sample*

Country	N	Gender		Age
		Female	Male	
Australia	183	138	45	27.3 (12.1)
Austria	195	113	82	25.1 (4.6)
Belgium	141	115	24	20.5 (4,4)
Brazil	212	156	56	24.1 (7.5)
Bulgaria	239	202	36	19,4 (1,1)
Canada	196	133	62	19.6 (4.6)
China	186	103	83	19.8 (1.2)
Colombia	159	78	81	21.3 (2.9)
Fiji	196	102	94	22.2 (3,00)
Germany	151	78	73	23.9 (3.3)
Hong Kong	152	98	51	--
Hungary	185	119	65	21.4 (2.2)
India	202	100	102	21.2 (2.8)
Indonesia	199	93	106	20.7 (2.4)
Italy	142	78	64	24.2 (7.8)
Japan	113	60	53	21.1 (1.5)
Korea (South)	224	123	101	21.0 (2.4)
Malaysia	198	159	39	23.6 (4,37)
Mexico	198	100	98	20.2 (2.0)
Netherlands	201	163	38	19.7 (2.9)
New Zealand	161	--	--	--
Norway	181	118	62	22.4 (3.5)
Philippines	330	218	112	19.0 (1.7)
Portugal	198	135	63	19.9 (2.7)
Russia	214	101	113	21.0 (3.6)
Singapore	220	162	58	20.9 (1.4)
Switzerland	145	107	37	21.4 (3.4)
Taiwan	291	140	151	20.7 (1.8)
Tunisia	135	109	24	22.6 (5.2)
USA	253	145	108	19.7 (1.2)
	$\Sigma =$			
Overall	5800			

Table 2 *Mean Evaluations, Standard Deviation, Skewness and Kurtosis across all 30 societies sorted descending by Mean*

Event	M	SD	Skewness	Kurtosis	ICC
Abolition of Slavery (19th c)	6.07	1.58	-1.95	2.98	.20
Invention of Printing Press	5.92	1.31	-1.33	1.57	.09
Digital Age (Computers, Internet)	5.72	1.39	-1.18	1.16	.04
Creation/Evolution of Humanity	5.65	1.52	-1.05	0.52	.11
Man on the Moon / Space Travel	5.50	1.41	-0.84	0.41	.06
Women's Emancipation & Suffrage	5.42	1.93	-1.11	0.03	.25
Industrial Revolution	5.37	1.43	-0.75	0.09	.06
Rise of Ancient Civilizations	5.30	1.38	-0.51	-0.12	.08
Renaissance (15th c)	5.21	1.36	-0.43	-0.16	.13
Foundation of United Nations	5.19	1.45	-0.64	0.10	.06
Fall of Berlin Wall/End of USSR	5.11	1.59	-0.69	-0.12	.18
Decolonization	5.08	1.57	-0.63	-0.09	.17
Discovery of Americas	4.93	1.52	-0.50	-0.09	.07
Rise of European Union	4.83	1.40	-0.34	-0.02	.13
French Revolution	4.72	1.41	-0.37	-0.05	.10
American (war of) Independence	4.68	1.41	-0.36	0.09	.09
Foundation of the major religions	4.34	1.59	-0.21	-0.31	.10
Rise of Islamic Civilization	4.26	1.41	-0.09	0.27	.12
Cultural Revolution (China)	4.15	1.55	-0.22	-0.21	.20
Age of Discovery / Colonization	4.15	1.68	-0.07	-0.66	.13
Russian Revolution (1917)	3.88	1.36	-0.14	0.19	.05
Partition of India and Pakistan	3.82	1.21	-0.29	1.20	.06
American Civil War	3.77	1.43	-0.02	-0.10	.05
30 Years War (17th c)	3.22	1.29	-0.14	-0.19	.05
Sino-Japanese War (1930s)	3.07	1.31	-0.02	-0.39	.03
Opium War (China, 19th c)	3.01	1.38	0.15	-0.32	.03
Islam-Christian Wars/Crusades (11th -14th c)	2.98	1.48	0.37	-0.35	.11
Great Depression (1930s)	2.86	1.36	0.50	0.04	.06
Cold War	2.73	1.43	0.60	-0.05	.06
Vietnam War	2.43	1.38	0.77	0.09	.10
Israeli-Palestinian Conflict	2.38	1.38	0.82	0.16	.09
World War I	2.21	1.51	1.30	1.07	.07
World War II	2.17	1.65	1.41	1.04	.10
Sept 11 Bombing	2.11	1.48	1.50	1.81	.10
Asian Tsunami (2004)	2.05	1.40	1.52	1.95	.09
Iraq War (2005)	2.02	1.32	1.54	2.27	.04
Holocaust	1.96	1.46	1.42	1.19	.20
Global Warming	1.93	1.42	1.92	3.46	.06
Atomic Bombings	1.89	1.46	1.82	2.72	.15
Terrorism (terror bombings)	1.68	1.26	2.31	5.39	.05

Table 3 *Goodness of Fit per item, based on GPA by clusters*

Event	1st step sum of square fit/sum of square total	2nd step sum of square fit/sum of square total	3rd step sum of square fit/sum of square total
Islam-Christian Wars/Crusades (11th -14th c)	0.97	0.44*	
Abolition of Slavery (19th c)	0.58	0.92	0.81
Sept 11 Bombing	0.98	0.96	0.99
Iraq War (2005)	0.89	0.78	0.87
Discovery of Americas	0.76	0.86	0.93
Renaissance (15th c)	0.97	0.95	0.77
30 Years War (17th c)	0.54	0.99	0.99
French Revolution	0.29*		
American (war of) Independence	0.91	0.98	1.00
Industrial Revolution	0.68	0.83	0.68
American Civil War	0.89	0.99	0.95
Terrorism (terror bombings)	0.96	0.92	0.99
Opium War (China, 19th c)	0.20*		
World War I	0.94	1.00	0.97
World War II	0.95	1.00	0.96
Creation/Evolution of Humanity	0.61	0.65	0.56
Rise of Ancient Civilizations	0.69	0.83	0.94
Sino-Japanese War (1930s)	0.35*		
Atomic Bombings	0.82	0.84	0.78
Cold War	0.93	0.98	0.98
Women's Emancipation & Suffrage	0.43*		
Holocaust	0.97	0.96	1.00
Russian Revolution (1917)	0.10*		
Fall of Berlin Wall/End of USSR	0.83	0.80	0.82
Cultural Revolution (China)	0.75	0.78	0.95
Man on the Moon / Space Travel	0.77	0.75	0.69
Decolonization	0.58	0.55	0.75
Great Depression (1930s)	0.99	0.52	0.99
Rise of European Union	0.66	0.59	0.82
Global Warming	0.87	0.96	0.99
Foundation of United Nations	0.90	0.90	0.95
Foundation of the major religions	0.54	0.10*	
Vietnam War	0.96	0.85	0.81
Invention of Printing Press	0.93	0.99	0.88
Israeli-Palestinian Conflict	0.92	0.89	0.98
Age of Discovery / Colonization	0.00*		
Rise of Islamic Civilization	0.99	0.99	0.98
Partition of India and Pakistan	0.87	0.14*	
Asian Tsunami (2004)	0.94	0.98	0.98
Digital Age (Computers, Internet)	0.65	0.84	0.64
Overall Fit	**0.76**	**0.82**	**0.90**
	*=removed		

Table 4 *List of excluded events*

Excluded Events
1. Islam-Christian Wars/Crusades (11th -14th c)
2. French Revolution
3. Opium War (China, 9th c)
4. Sino-Japanese War (1930s),
5. Women's Emancipation & Suffrage
6. Russian Revolution (1917)
7. Foundation of the major religions
8. Age of Discovery / Colonization
9. Partition of India and Pakistan
10. Sept 11 Bombing
11. Discovery of Americas
12. 30 Years War (17th c),
13. Rise of Islamic Civilization
14. Invention of Printing Press
15. Rise of Ancient Civilizations
16. Cultural Revolution (China)

Table 5 *Overall Factor Loadings, Cronbach's alpha, mean inter-item correlation, and Tucker's Phi for "Historical Calamities", "Historical Progress", and" Historical Resistance to Oppression"*

	Factor 1	Factor 2	Factor 3
Event			
"Historical Calamities" ($\alpha_{overall}$ = .85; $\alpha_{western}$ = .82, $\alpha_{non-western1}$ = .82; $\alpha_{non-western2}$ = .84 overall mean inter-item correlation= .32; Tucker's Phi = 1.00, 1.00, .99)			
World War I	**0.74**	0.01	0.06
World War II	**0.73**	0.04	0.04
Atomic Bombings	**0.62**	0.01	-0.05
Vietnam War	**0.58**	0.00	-0.04
Terrorism (terror bombings)	**0.57**	-0.21	-0.04
Cold War	**0.56**	-0.02	0.13
Israeli-Palestinian Conflict	**0.56**	-0.03	-0.14
Iraq War (2005)	**0.55**	0.05	-0.09
Asian Tsunami (2004)	**0.55**	-0.19	-0.07
Global Warming	**0.53**	-0.03	-0.16
Holocaust	**0.51**	0.02	-0.21
Great Depression (1930s)	**0.46**	-0.14	0.10
"Historical Progress" ($\alpha_{overall}$ = .65; $\alpha_{western}$ = .65, $\alpha_{non-western1}$ = .65; $\alpha_{non-western2}$ = .65; overall mean inter-item correlation=,.24; Tucker's Phi = .99, .98, .96)			
Digital Age (Computers, Internet)	0.03	**0.71**	-0.07
Man on the Moon / Space Travel	-0.06	**0.64**	0.05
Creation/Evolution of Humanity	-0.07	**0.54**	0.19
Industrial Revolution	0.03	**0.53**	0.31
Rise of European Union	-0.03	**0.53**	0.18
Foundation of United Nations	-0.13	**0.44**	0.21
"Historical Resistance to Oppression" ($\alpha_{overall}$ = .59; $\alpha_{western}$ = .50, $\alpha_{non-western1}$ = .56; $\alpha_{non-western2}$ = .57; overall mean inter-item correlation= .19;Tucker's Phi = .99, .97, .96)			
American Civil War	0.28	-0.07	**0.55**
American (war of) Independence	0.06	0.22	**0.54**
Abolition of Slavery (19th c)	-0.20	0.05	**0.51**
Renaissance (15th c)	-0.10	0.19	**0.51**
Fall of Berlin Wall/End of USSR	-0.05	0.21	**0.50**
Decolonization	-0.15	0.12	**0.50**

Table 6. Coefficients for the fixed and random components of nested multilevel models assessing the effects of historical evaluations on willingness to fight for one's country across cultures.

		Fixed part			Random part	
		γ	se	t	u	χ^2
Step 1	Intercept	4.10	.16	25.13*	.78	1093.67*
	WWII	.08	.03	2.83*	.01	89.37*
	September 11th	-.03	.02	-1.43	.01	40.33
Step 2	Intercept	4.14	.16	25.68*	.76	728.05*
	WWII	-.01	.03	-.22	.01	48.52*
	September 11th	-.04	.03	-1.49		50.53*
	Historical Calamities	.27	.11	2.56*	.21	131.39*
	Historical Resistance	.01	.04	.36	.01	44.30
	Historical Progress	.21	.04	4.96*	.04	62.88*

Note. The residual Level 1 variance component at Step 1 (*r* in equation 1.0) was 2.91. The residual Level 1 variance component at Step 2 (*r* in equation 1.1) was 1.70. All effects remained nearly-identical when additional analyses were conducted with a version of the Historical Calamities scale that did not include WWII evaluations as part of that scale. Evaluations of WWII specifically remained non-significant in this alternative model ($\gamma = .01$, $t = .60$, $p = .55$), and evaluations of Historical Calamities remained significant and comparable in magnitude ($\gamma = .25$, $t = 2.57$, $p = .02$).

Figure Captions

Figure 1. Rotated MDS configuration for 24 events by Western Cluster

Figure 2. Rotated MDS configuration for 24 events by Non-Western Cluster 1

Figure 3. Rotated MDS configuration for 24 events by Non-Western Cluster 2

Figure 4. Visual Representation of all 30 societies by "Historical Calamities" and "Historical

Progress"

Figure 5. Visual Representation of all 30 societies by "Historical Calamities" and "Willingness

to Fight for one's Country"