

**DECLINING WILLINGNESS TO FIGHT IN WARS:
The Individual-level Basis of the Long Peace**

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ABSTRACT

The Democratic Peace thesis suggests that the absence of war between major powers since 1945 is caused by the spread of democracy. The Capitalist Peace thesis emphasizes trade and the rise of knowledge economies as the factors driving peace. Complementing these interpretations, we present empirical evidence of a cultural change that is making peace more desirable to the publics of most societies around the world. Analyzing public opinion data covering 90 percent of the world's population over three decades, we demonstrate that rising levels of economic and physical security elevate the life opportunities of growing population segments and lead them to become increasingly tolerant of diversity and place growing emphasis on self-realization. In recognition of life's rising opportunities, people's valuation of life changes profoundly: readiness to sacrifice one's life gives way to an increasing insistence on living it, and living it the way one chooses. Hence, pro-choice values rise at the same time as willingness to sacrifice lives in war dwindles. Historical learning based on the specific experiences of given societies has also changed their publics' willingness to fight in wars. This transformation of worldviews places interstate peace on an increasingly solid mass basis.

keywords

long peace, democratic peace, willingness to fight, modernization, historical learning

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Introduction

During the postwar era, sophisticated thinkers took it for granted that it was a question of time before World War III would break out and eradicate civilization. But events took an unexpected turn. By 1984, the world had already experienced the longest period without war between major powers since the Roman Empire. This long peace now extends over an additional thirty years.

In trying to explain this phenomenon, Doyle (1986) presented evidence that democracies almost never fight each other. Research by Mousseau, Hegre and Oneal (2003), Gartzke (2007) and McDonald (2009) qualifies this evidence, showing that only the rich democracies of modern times are peaceful with each other. These findings support Rosecrance (1986) and Mueller (1989) who argued some time ago that the “democratic peace” exists because most of the modern democracies are prosperous and interrelated through trade.

Liberal thinkers emphasized early on that expanding markets and trade would make war less profitable. Angell (1933 [1900]) predicted the end of war between European powers because of their grown economic interdependence. But the two world wars that followed discredited the claim that development and trade would make war obsolete.

Decades later, the enduring peace among major powers led a new generation of scholars to reconsider the once optimistic outlooks. Penetrating analyses of large bodies of evidence suggests that the classic liberals were right, as Oneal and Russett (1997), Hegre, Oneal and Russett (2010) and Dorussen and Ward (2010) conclude. While this has become the consensus in the discipline, disputes continue over the question of whether modern democracies’ prosperity and interdependence accounts for their peacefulness (Gartzke 2007; Mousseau 2009; McDonald 2009), or whether there is something inherent in democracy itself that makes two states with this system less warlike (Dafoe 2010; Dafoe & Russett 2013).

Other scholars are more concerned with the lateness of the long peace’s emergence. Hence, they cite more recent cultural changes, which only set in after the two world wars. Mueller (1989), Gat (2006) and Pinker (2011) refer to various trends that indicate a diminishing acceptance of violence and war among the publics of developed countries. Convincing as these arguments might be, their authors do not provide any individual-level evidence of such changes. This is the gap our article tries to fill, presenting evidence from representative national surveys

covering 90 percent of the world's population. We demonstrate that, over the last thirty years, the publics of virtually all developed societies became more supportive of gender equality, sexual liberation and other "emancipative values," at the same time as their tolerance of human casualties in war has been shrinking.

To explain these findings, we start from the fact that existential conditions have become more secure and living conditions more promising for increasing segments of the world population. Incomes, education, longevity and other living conditions have improved in ways that increase people's opportunities for self-realization. Recognition of these broader opportunities is changing people's valuation of life: readiness to sacrifice life gives way to an emphasis on living life as one chooses. Pro-choice values and other emancipatory orientations increase and willingness to fight other countries dwindles.

The evidence presented here suggests that human existence is shaped by an *opportunity-value link* that keeps people in touch with reality, causing subjective values to adjust to changing life opportunities. Our species is adopting more peaceful, feminine and humanistic orientations as opportunities arise that make these orientations more useful, providing an increasingly solid mass basis for interstate peace.

The first section of this article reviews the literature, outlines our theory and derives testable hypotheses. Section two describes the evidence base, measurements and methods. The third section presents the findings, followed by a discussion. The article is accompanied by an appendix (online at www.____.org) that documents measurements, robustness tests and replication data. A discussion section at the end of the appendix addresses questions that came up during the review.

THEORY

Since the end of World War II, peace in interstate relationships has become more prevalent (Gat 2006; 2007). As Pinker (2011) argues, this trend is part of a long-term decline of violence. In the 17th and 18th centuries, societies began to abolish slavery, dueling, witch burning, torture and other cruelties. Since World War II, developed states have stopped waging war on one another and the number of wars and war casualties worldwide has been in decline (Goldstein, 2011). Since the end of the Cold War, civil wars as well are in decline (Human Security Report 2012). As Goertz, Diehl and Balas (2014) demonstrate, the international system has become

increasingly peaceful since 1945. Even mass insurrections have become less violent in recent decades, and non-violent insurrections have been more successful in ending oppression than violent ones (Chenoweth & Cunningham 2013; Schock 2013).

The decline in violence is paralleled by rising levels of existential security and other improving living conditions. By 2010, the world as a whole had attained the highest level of prosperity ever experienced (Ridley 2010). During the past two decades, Western societies have had relatively slow growth rates, but material wellbeing remains at historically high levels; life expectancies are unprecedented and continue to increase, as do levels of education and access to information (Human Development Report 2012). The rest of the world has been catching up with the West (Estes 2010). China and India—with almost 40 percent of the world’s population—have had exceptionally high rates of economic growth, and many other developing societies have made impressive gains. The ex-communist world is recovering from its post-transition shock, and sub-Saharan Africa recently began catching up in life expectancies, education and per capita incomes (Africa Progress Report 2012). As Welzel (2013: 4) shows, from 1970 to 2010, people in *all* regions of the world experienced improving material wellbeing, expanding access to education and rising life expectancies.

These changes have been accompanied by increasing emphasis on human rights and the spread of democracy (Huntington 1991; Markoff & White 2009; Pegram 2010). For the past two centuries, democracy has become increasingly widespread—with each surge being followed by a decline, but with a strong upward long-term trend. Despite a recent revival of authoritarianism, human rights and democracy have made massive progress since the late 1980s (Moeller & Skaaning 2013).

Pinker (2011) suggests that these things are all linked. As reasons for the decline of violence he cites the spread of markets and trade which depend on nonviolent human transactions, as well as increasing education and access to information which enable people to see the world from the perspective of people unlike themselves. As this happens, “enlightenment values” begin to dominate people’s worldviews.

Indeed, the literature on cultural change suggests that improving living conditions bring fundamental shifts in ordinary people’s beliefs and values. The logic of these shifts was described by Inglehart (1997: 81):

“In an agrarian or hunting and gathering society in which the land supply is just sufficient to feed the existing population, the arrival of a foreign group poses a direct threat to survival: in such situations, xenophobia is realistic and almost certain to arise. In a technologically advanced society foreigners... do not pose a threat to survival, and may even enhance the standard of living. But in times of economic or political crisis, even advanced industrial societies are prone to xenophobia, as the rise of fascism during the Great Depression demonstrated, and as recent events in Western Europe and the U.S. continue to demonstrate... Conversely, at the individual level, Postmaterialists-- those who have grown up under conditions of relative economic and physical security-- tend to be relatively tolerant of people with different ethnicity or sexual orientations and they are relatively supportive of gender equality

Confirming this interpretation, Inglehart (1977; 1990; 1997), Norris and Inglehart (2011) and Inglehart and Welzel (2005) present evidence that economic development--together with declining vulnerability to starvation, disease and violence--give rise to a new sense of existential security. Young generations grow up taking survival for granted and feel less threatened by people from other countries. Accordingly, these cultural changes diminish people's willingness to fight other countries.

Building on this line of thought, Welzel (2013) outlines an “evolutionary theory of emancipation.” This theory emphasizes the rise of opportunities for self-realization that comes with increasing incomes, education and longevity. Rising life opportunities transform the ways in which people value life, mobilizing their desires for self-realization. Thus, to utilize their expanding options, people begin to adopt “emancipative values,” placing increasing emphasis on universal freedoms. This emancipatory trend has turned most powerful in the domain of reproductive freedoms, including the freedom to abort an unconsented pregnancy, divorce an unloved mate and to follow a homosexual tendency (Inglehart & Norris 2003).

Welzel (2013: 71) characterizes emancipative values in the field of reproductive freedoms as “pro-choice values.” Importantly, growing intolerance of human costs is a natural byproduct of rising pro-choice values: when larger parts of a population begin to see life no longer as a source of threats but as a source of opportunities, sacrificing lives increasingly seems an intolerable waste of human potential. Consequently, people's willingness to sacrifice their lives in war dwindles as pro-choice values spread.

The inverse connection between pro-choice values and life-loss tolerance reflects an evolutionary principle: sexual freedom and physical violence are at opposite ends of the utility

ladder of freedoms. At the lower rungs of this ladder, life is filled with threats, making violence and rigid sex norms a necessity of survival. At the higher rungs of the ladder, life offers so many opportunities that belligerence turns into a waste of options and sexual repression becomes less crucial (de Waal 1995).

Subjective human values are linked to objective life opportunities. This link keeps people in touch with reality, which makes moral evolution possible. Rising opportunities transform morality, increasing pro-choice orientations while reducing tolerance of military casualties. We present evidence that this transformation has been occurring for the last thirty years. As it continues, it places interstate peace on an increasingly solid mass basis.

Moral evolution is also shaped by historic experiences. For instance, their devastation in WWII left a legacy among the publics of the former Axis powers: the Japanese, German and Italian publics express the least willingness to fight other countries in war. Conversely, the publics of the five Nordic countries have developed an exceptional emancipatory lifestyle, yet this happened in direct vicinity of an empire that represents an opposite way of life and has repeatedly shown its territorial ambitions—previously the Soviet Union and now Russia. Exposure to this threat keeps the willingness to defend their countries' lifestyles stronger than one would otherwise expect from publics with such pronounced pro-choice values as the Nordic ones.

Our evolutionary theory of moral change suggests three hypotheses:

- (1) *Cross-sectionally*, the publics of more developed societies (i.e., countries with greater existential security and broader life opportunities) place more emphasis on pro-choice values and are less willing to risk their lives in war.
- (2) *Longitudinally*, in societies in which pro-choice values grew most strongly, people's willingness to risk lives in war fell most sharply.
- (3) In *multi-level perspective*, individuals who live in societies with widespread pro-choice values, are less willing to risk their lives in war.

The latter hypothesis reflects the nature of pro-choice values as a “reciprocal orientation.” As Welzel (2013: 110-112) argues, reciprocal orientations show their strongest impact when they are reinforced through mutual recognition, that is, when they are widely shared. Therefore, we expect pro-choice values to diminish people's willingness to fight more by their prevalence in

the respective country than by how much an individual's own support for these values exceeds her country's average.

We recognize that historic experiences are also a driver of moral evolution and, thus, add a fourth hypothesis:

- (4) *Historically*, the former Axis powers' humiliating defeat in World War II had a diminishing impact on willingness to fight for their country, while the Nordic countries' emancipatory lifestyles in the vicinity of a threatening empire encourages willingness to fight for one's country.

METHODS, SAMPLES, MEASUREMENT

To test our hypotheses, we use the World Values Surveys (WVS) and European Values Studies (EVS), which have been conducted in five rounds (a sixth was under completion at the time of our analyses). These surveys cover random national samples of an average size of 1,300 respondents in over ninety societies around the globe. They include the countries with the largest populations and biggest economies from each world region, representing ninety percent of the world's population. Information about the questionnaires, fieldwork and data files is available online at www.worldvaluessurvey.org.

Attitudinal data in this study are taken from the WVS/EVS (World Values Survey Association 2010). Data on the societies' structural characteristics are taken from the Quality of Governance Dataset (Samanni et al. 2010). The appendix (online at www.____.org) includes all measurement details not outlined in this section.

We employ three complementary analytical perspectives. We first use a cross-sectional perspective: after demonstrating that pro-choice values prevail in societies with high-level life opportunities, we examine the proportion of people willing to fight in war in each society, using the latest available survey. We next take a longitudinal view, analyzing changes over time in people's willingness to fight in war. Using dynamic regressions, we explain change in people's willingness to fight by change in relevant other variables over the same period—selecting those variables that proved important in the cross-sectional analysis. Finally, we develop multi-level models to examine how country-level and individual-level characteristics together shape people's willingness to fight in war.

Surveys at multiple time points are not available from all countries, so the size of our sample drops from about eighty to forty countries when we analyze change in people's willingness to fight. To avoid confusing short-term fluctuations with long-term trend, we require a time span of at least ten years. Although this reduces the number of countries, selection bias does not seem to be a major problem. As Figure 2 below shows, the longitudinal sample still includes the societies with the biggest economies and populations from each world region and shows little deviation in the distribution of our key variables from the complete cross-sectional country sample.

Our dependent variable is willingness to fight for one's country, as measured by the following question:

“Of course, we all hope that there will not be another war, but if it were to come to that, would you be willing to fight for your country?”

The response options are “yes” and “no.” Respondents who did not answer this question (i.e., 29.7 % of all respondents) are treated as “missing.”¹ At the national level, we analyze the proportion of respondents, expressed in fractions of 1, saying they are willing to fight. At the individual level, we analyze each person's response, coding willingness to fight 1 and unwillingness 0.

As explanatory variables at the country level, we use life opportunities, external and internal security, enduring democracy, and international cooperation. In the cross-sectional analyses, these variables are measured at the start of the period over which willingness to fight is measured.

Linked to the rise of knowledge societies, expanding education, access to information and technological progress all increase life opportunities for much of the population. A compound measure of these opportunities is the World Bank's (2005) “knowledge index (KI).” Labelled “life opportunities I,” we use this index in the cross-sectional analysis. However, this measure is unavailable in sufficient time series to use it in our longitudinal analyses, so we use an alternative multi-component indicator, based on per capita GDP, the mean number of schooling

¹ One might think that a felt social desirability to fight for one's country prompts people who actually are unwilling to fight to refuse a response. If so, one should treat missing responses as a “no fight” answer. We re-ran all analyses using this assumption. We also used multiple imputations to replace missing values with estimated values. Since neither procedure produced significantly different results, our analysis treats non-response as a missing value.

years, tertiary enrollment ratios, life expectancies, the inverse of the fertility rate and the inverse Gini index. These measures are very strongly correlated, reflecting a single dimension of cross-country variation--life opportunities.² The reliability of the summary index of these six measures is high: showing a Cronbach's alpha of .83. Thus, we average these six measures into an index, labelled "life opportunities II."³

To measure external security, we use the number of international conflicts in which a society was involved before 1995. Data are taken from Gleditsch et al.'s (2002) "armed conflict dataset." To measure internal security, we use the overall assessment of economic, social and political risk in 1995 provided by the PRS Group's (2010) "international country risk guide." To measure a society's historically accumulated experience with democracy, we use Gerring et al.'s (2005) "democracy stock" index in 1995.⁴

Our longitudinal analyses measure change in levels of democracy from the earliest to latest time point in our data, using Welzel's (2013: 249-277) "citizen rights index." This index combines Freedom House's political rights and civil liberties ratings, controlling for uncovered rights violations tapped by data from the Cingranelli/Richards Human Rights Data Project (Freedom House 2012; Cingranelli & Richards 2010).⁵

To measure international cooperation, we use Dreher, Gaston and Martens (2008) index of "political globalization." This multi-point index summarizes the number of international treaties a country has signed, the number of peacekeeping operations it has joined and the number of international organizations of which it is a member.

To account for the Nordic experience, we use a dummy variable on which Denmark, Finland, Iceland, Norway, and Sweden are coded 1 while all other societies are coded 0.

² For a justification of the life opportunities I and II indices and the components of the second version of this index, see point (5) in the review response section of the appendix (pp. 22-23).

³ We calculate a weighted average, so that each measure has a weight reflecting its representativeness of the common dimension: first, we multiply each measure by its factor loading on the common underlying dimension (.91 for schooling years, .87 for life expectancy, .79 for the inversed fertility rate, .78 for the tertiary enrolment ratio, .73 for the per capita GDP, .61 for inversed Gini index), then we add up these weighted scores and finally divide the sum by the sum of factor weights.

⁴ The index adds up the scores on the Polity autocracy-democracy index from the first year of the time series (national independence) to the year of the survey, as we do with all explanatory variables.

⁵ We have also worked with the Polity IV "autocracy-democracy" index but this measure produces weaker results. The deficiencies of the Freedom House measures are cured by the treatment applied in Welzel's "citizen rights" index. For a detailed discussion, see point (6) in the review response section of the appendix (pp. 23-24).

Similarly, we use a former Axis powers dummy variable, coding East and West Germany, Austria, Italy, and Japan 1 and all other societies 0.

Pro-choice values represent one of the four components of Welzel's (2013: 66-73) index of emancipative values.⁶ Pro-choice values measure support for reproductive freedoms, including the freedoms of abortion, divorce and homosexuality, which are each rated on a scale from 1 ("never justifiable") to 10 ("always justifiable"). The Cronbach's alpha for the three items is .80 at the individual level and .85 on the country level. The three items tap a single dimension with equal factor loadings for each item, so we standardize them into a uniform scale range from 0 to 1.0, calculating the average score across the three items. Using the most recent survey from each society ($N = 93$), the mean score on this pro-choice index across some 160,000 respondents is .31. The standard deviation is .28. To measure the prevalence of pro-choice values in each society, we calculate the national mean.

In our multi-level model, we test the impact of pro-choice values on people's willingness to fight, against other attitudes. Díez-Nicolas and Puranen (2008; 2013) provide the most encompassing study of attitudinal predictors of willingness to fight, using national pride, confidence in the armed forces and democratic regime preferences as predictors. National pride is measured by the question "How proud are you to be [your nationality]? Very proud, quite proud, not very proud, not at all proud?" Confidence in the armed forces is measured on a four-point scale from "no confidence at all" to "very much confidence." Democratic regime preferences measure support for the statement that "having a democratic system is a good idea" *versus* support for the statement that "having strong leaders who do not have to bother with parliaments and elections is a good idea." As standard demographic controls, we also include a dummy variable for gender, birth year and a nine-point level of education index.

All our measures are rescaled into a uniform range from 0 to 1.0, with fractions for intermediate positions. This makes unstandardized regression coefficients between different variables directly comparable and easily interpretable, showing how a shift in a treatment variable translates into a shift in the outcome variable.

FINDINGS

⁶ For an explanation of why we use choice values instead of the broader measure of emancipative values, see point (4) in the review response section of the appendix (pp. 21-22).
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Cross-Sectional Evidence

Figure 1 illustrates the opportunity-value link between pro-choice values and life opportunities. On both diagrams, the vertical axis shows the level of life opportunities in an individual's country, ranging from a minimum of 0-0.20 to a maximum of 0.90-1.00. The vertical axis indicates how strongly individuals living in these different opportunity environments support choice values. Theoretically, the support level varies from 0, when no one in a given society is pro-choice oriented, to 1.0, when everyone is completely pro-choice oriented. The left-hand diagram shows this separately for tolerance of divorce, abortion and homosexuality. The right-hand diagram shows the same for the combined support of these freedoms.

(Figure 1 about here)

Choice values rise sharply and monotonically as we move from low-opportunity societies to high-opportunity societies. The changes are dramatic. For example, tolerance of homosexuality is more than ten times stronger in high-opportunity societies than in low-opportunity societies. As the right-hand diagram shows, there is variation in choice values among people in each opportunity environment but the lower and upper boundaries of this variation move steeply upward with rising opportunities.

Since life opportunities have been increasing over recent decades in most of the world, the strong opportunity-value link in Figure 1 suggests that choice values have been increasing accordingly. Figure 2 shows changes over time in choice values for all 52 societies with a time series of at least ten years.⁷ The publics of 45 of the 52 countries became more pro-choice oriented; one shows virtually no change; and only six publics became less choice oriented.

(Figure 2 about here)

These changes are heavily skewed by the societies' opportunity environments, as is evident from the left-hand diagram of Figure 3. On the vertical axis we see mean change scores in choice values and their distribution. The horizontal axis shows these separately for societies that provide low-, medium- and high-opportunity environments. As the opportunity-value thesis suggests, the publics in *all* of our high-opportunity societies became more pro-choice oriented. For medium-opportunity societies, this trend is much less pronounced, although increases in choice values clearly outweigh decreases. In low-opportunity societies, by contrast, the mean

⁷ To standardize cross-national differences in the covered time spans, we estimate changes for a ten-year period (calculating the average annual change for each country and then multiplying this number by ten). *Journal of Peace Research*, 2015 52(4), 418-434.

change is slightly positive but changes range almost equally over the increase and decrease zones of the scale.⁸

(Figure 3 about here)

The left-hand diagram in Figure 4 shows the proportion of a public that is willing to fight, in the latest available survey from some eighty societies. The figures vary widely, from 95 to 98 percent in Rwanda, Viet Nam, Turkey and Tanzania, to a low of 25 percent in Japan. The publics of Germany, Japan and Italy--the former Axis Powers—show some of the world's lowest rates of willingness to fight for their country.

(Figure 4 about here)

As the right-hand diagram in Figure 3 illustrates, the average willingness to fight for one's country varies significantly with a society's opportunity environment: in low-opportunity societies it is 85 percent, in medium-opportunity societies 76 percent and in high-opportunity societies 63 percent. More dramatic are the differences in the lower boundaries of the distribution: in low-opportunity environments, no public's average willingness to fight in war is below 65 percent; in medium-opportunity environments it drops to 55 percent but in high-opportunity environments it goes down all the way to 25 percent. Low-opportunity and high-opportunity societies show an overlap of only fourteen percentage points.

These findings suggest a direct link between life opportunities and willingness to fight for one's country, but we suggest that this link is mediated by the tendency for rising life opportunities to encourage choice values. Figure 4 shows how a public's average willingness to fight in war is linked to the prevalence of choice values. The left-hand diagram shows the relationship without controls. The diagram demonstrates that the overall correlation between choice values and willingness to fight ($r = -.47$; $N = 79$; $p < .001$) is fairly strong and in the predicted (negative) direction. Iraq is an extreme outlier. Although the Iraqis rank among the world's least pro-choice oriented people, their willingness to fight for their country is exceptionally low. This reflects the ethnic conflict between Sunnis, Shiites and Kurds, who are unwilling to fight for *Iraq*-- but very willing to fight each other (Inglehart, Moaddel & Tessler

⁸ Pro-choice values are weaker in low-opportunity societies, so there is more room for choice values to increase in these societies. But this process is not an automatism; it needs ascending life opportunities. For a detailed analyses of rising pro-choice values, see Authors (forthcoming).

2006). In Iraq, willingness to fight must be assessed on a sub-national rather than a national level, so we exclude it from subsequent analysis.

Andorra, by contrast, is a “leverage case”: it shows some of the strongest pro-choice orientations among all surveyed publics, providing a critical test case for the *inverse choice-sacrifice link*. And indeed, Andorrans show some of the lowest willingness to fight for their country. Today, a majority of Andorra’s population consists of prosperous immigrants who maintain residence there because of low taxes. It has one of the world’s highest per capita incomes and no perceived military threat-- and accordingly, its public shows strong pro-choice orientations and relatively little willingness to fight.

There are two coherent groups of outliers. The first contains the Germans, Italians and Japanese—all of whom show an even lower willingness to fight than their strong pro-choice orientation predicts. This reflects the historic experience of their devastating defeat in World War II. Another group of outliers are the Nordic countries: Norway, Sweden, Denmark, Finland and Iceland. Although their publics exhibit some of the world’s strongest pro-choice orientations, their willingness to fight is much higher than this would predict, probably for the reasons we have suggested.

Because of distinctive historic experiences, these two groups of societies deviate from the overall pattern, weakening the otherwise strongly inverse choice-sacrifice relationship. But if we use dummy variables to control for these two groups’ distinctive experiences, the impact of choice values on willingness to fight becomes stronger. As the right-hand diagram of Figure 4 demonstrates, when we take into account whether a society experienced defeat in WWII or is a Nordic society, choice values alone account for fifty percent of the cross-national variance in willingness to fight.

The multivariate regressions in Table 1 analyze the impact of choice values on a society’s mean willingness to fight, controlling for life opportunities, enduring democracy, international cooperation, external and internal security, and the Nordic and WWII defeat experiences.

(Table 1 about here)

The first regression model introduces life opportunities and enduring democracy as predictors of a public’s willingness to fight. The negative signs of both predictors suggest that, as expected, they diminish a public’s willingness to fight. Moving from societies with the lowest life opportunities to those with the highest, diminishes a public’s willingness to fight by 28

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percentage points. A similar move from the least to the most enduring democracy diminishes willingness to fight by another 7 percentage points, which is not significant. Adding dummy variables for the two exceptional experiences (model 2), it turns out that the experience of WWII defeat diminishes a public's overall willingness to fight for its country by 26 percentage points. The Nordic experience, by contrast, increases it by 25 percentage points. The effects of these two experiences are so powerful that the explained variance grows from twenty-six percent to fifty-five percent. The negative effect of life opportunities drops somewhat but remains highly significant; the negative effect of enduring democracy increases slightly and now just crosses the significance threshold.

Model 3 adds choice values to the prediction. As the coefficient shows, moving from the weakest to the strongest possible choice values diminishes a public's overall willingness to fight by 59 percentage points. And while the effects of the two historic experiences remain strong and highly significant, choice values entirely absorb the formerly strong pacifying effect of life opportunities—in keeping with the hypothesis that ascending life opportunities diminish willingness to fight in wars through their tendency to produce a choice-oriented culture. Model 4 illustrates that the pacifying effect of choice values does not diminish or turn insignificant when we control for other, presumably peace-favoring factors, including external and internal security. None of these factors is significant when one controls for choice values. Thus, our most efficient model with the highest explanatory power relative to the number of variables is model 5. With only the historic experiences and choice values, it explains sixty-five percent of the cross-national variance in willingness to fight.

Longitudinal Evidence

Strong choice values are linked with low willingness to fight for one's country. But this cross-sectional evidence does not demonstrate a causal linkage. To move closer to a causal interpretation, we must establish that a dynamic relationship exists between choice values and willingness to fight, even when we control for alternative dynamics.

Figure 2 has shown that pro-choice values have been rising in the overwhelming majority of societies. Our thesis of an inverse link between pro-choice values and willingness to fight for one's country now suggests that people's willingness to fight for one's country must have fallen as pro-choice values were rising.

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(Figure 5 about here)

As Figure 5 demonstrates, this is indeed what we find—overwhelmingly. The figure covers all forty-eight societies from which data is available across a span of at least ten years.⁹ As it demonstrates, the public’s willingness to fight fell in thirty-six societies, showed no change in two societies, and increased in three societies. Among societies showing any change, 92 percent became less willing to fight for their country. The mean change was a 6-point decline per decade in the percentage saying they were willing to fight.

Are these changes due to concurrent changes in choice values or any of the other possible influences on willingness to fight? The analyses in Table 2 regress each society’s willingness to fight at the time of latest survey (T_2) on (a) itself at the time of the earliest survey (T_1) and (b) on change from T_1 to T_2 in those predictor variables that showed significance in the cross-section.

(Table 2 about here)

This is a lagged-dependent-variable model, which means it is dynamic: since we control for the lagged dependent variable, other predictors in the model explain willingness to fight at the later time point *insofar* as it changed from willingness at the earlier point. Another dynamic feature of the model is the fact that the predictors themselves measure changes. Thus, the regressions show to what extent *change* from T_1 to T_2 in a given predictor *shifts* willingness to fight at T_2 from its level at T_1 .

Including the lagged dependent variable among the predictors has two more advantages. First, it reduces the problem of endogeneity, controlling for the possibility that other predictors in the model might be shaped by willingness to fight at the start of the observation period. Moreover, it reduces omitted variable bias: lagged willingness to fight captures the impact of all prior influences on willingness to fight, including influences we don’t know.¹⁰

The models in Table 2 are parsimonious, including no more than four variables at a time. This is done because our sample of forty-one societies is too small to allow for more simultaneous controls.¹¹ Because they are a powerful constant factor, the dummies for the two

⁹ Including as an additional treatment variable the length of the time span of each society’s specific change measure does not alter the results shown here.

¹⁰ For a more detailed discussion of omitted variable bias in our study, see point (3) in the review response section of the appendix (pp. 19-21).

¹¹ In point (3) of the review response section in the appendix (pp. 19-21), we point out that increasing the number of simultaneous controls does not solve the problem of omitted variable bias. We also point out that in lagged dependent variable models that problem is anyways greatly reduced.

country-specific experiences are included in every model, providing a reference base against which the impact of change in the other independent variables is estimated. We analyze the impact of change in each of these four independent variables one at a time. What do we find?

The large coefficients for the lagged dependent variable in Table 2 indicate that willingness to fight has a strong auto-correlation over time: high or low willingness to fight is a relatively stable characteristic of given societies: it changes but does so at a glacial pace. Surprisingly from the viewpoint of the democratic peace thesis, Model 1 shows that rising democracy from time T_1 to time T_2 does *not* significantly diminish willingness to fight at time T_2 relative to its level at time T_1 . Nor does elevation in life opportunities show a significant diminishing effect; the same is true for increased international cooperation. The strongest effect—and the only one that is highly significant besides the Nordic experience—emanates from rising choice values¹²: Model 4 estimates that when these values rise from minimum to maximum, a public's willingness to fight falls by 55 percentage points from time T_1 to time T_2 .¹³ The partial regression plot in Figure 6 visualizes the dynamic relationship between rising choice values and dwindling willingness to fight.

(Figure 6 about here)

With data from only forty-one societies, these results must be interpreted with caution. A few influential cases can drive the relationship in such a small sample. This evident from Figure 6: without Turkey, Italy and China at the upper left-end of the distribution and without Spain, Chile and Bulgaria at its lower right, there would not be much of a relationship. On the other hand, these are critical test cases, showing much more of an increase in choice values than otherwise expected (Spain, Chile, Bulgaria) versus much less of an increase than otherwise expected (Turkey, Italy, China). Thus, our theory predicts much more of a drop in willingness to fight in the former group than in the latter one. This is precisely what Figure 6 shows. The cluster of societies in the center of this figure also fits our theory: when choice values do not change

¹² As Models 5 and 6 show, the diminishing effect of rising choice values holds controlling for ascending life opportunities and increasing democracy. But the reverse does not hold: the latter two changes do not reach significance when combined with choice values.

¹³ If one switches the positions of choice values and willingness to fight in Model 4, such that falling willingness to fight predicts rising choice values, no significant effect is obtained. This suggests that the main direction of impact in the relationship between choice values and willingness to fight runs from change in the former to change in the latter. For a discussion see point (1) in the review response section of the appendix (pp. 17-18).

much more or much less than expected (residuals between -.10 and +.10), then willingness to fight in war also does not change much more or much less than expected (residuals in the same range). Although only limited longitudinal evidence is available, its patterns converge with those from the broader cross-sectional data, suggesting that rising choice values play a major role in reducing a public's willingness to fight.

Multi-level Evidence

Because of space limitations, we present the multi-level evidence in the appendix (p. 28). As Appendix-Table 4 shows, the inverse link between choice values and willingness to fight also exists at the individual level. Hence, our macro-level findings have a micro-foundation. Interestingly, people's willingness to fight is more strongly influenced by that part of their choice values that matches those of most other people in their country than by the part that deviates from most others. This shows that choice values operate through social confirmation: the pacifistic tendency of these values is reinforced through their commonness.

CONCLUSION

Cross-sectional, longitudinal and multi-level evidence from societies containing most of the world's population confirms that ascending life opportunities give rise to pro-choice values. As these values become widespread, people's willingness to fight other countries dwindles.¹⁴ These findings hold against alternative explanations of peace.

Of course, one needs to be careful with causal explanations. In the absence of full experimental control, one can never conclusively prove causality. Yet, within the limits of what one can achieve without experimental data, our results clearly suggest a causal relationship in the supposed direction. Our cross-sectional, longitudinal and multi-level findings all are consistent with what one would expect, if causality is at work. Our expectation that this would be the case was open to falsification in each of the three types of evidence. And the evidence base isn't small; it covers societies from all around the world, including the largest populations in each

¹⁴ For a detailed justification of these conclusions, see point (2) in the review response section of the appendix (pp. 18-19).

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global region. Nevertheless, further testing the causal status of our interpretation should have a high priority on the future research agenda.¹⁵

Our results show that societies are capable of moral evolution because human existence is shaped by an opportunity-value link. This link allows people to adjust their subjective orientations to objective opportunities, keeping their lives in touch with reality and driving moral evolution as life opportunities change. Under rising opportunities, a transformation of morality takes place that increases pro-choice orientations at the same time as it reduces tolerance of human casualties. Our evidence suggests that this transformation has been going on over the last thirty years. If it continues, it will place international peace on an increasingly solid mass basis.¹⁶

Moral evolution is also driven by historic experiences. World War II left a lasting legacy: only a minority of the German, Japanese and Italian publics say that they would be willing to fight for their country. Conversely, the publics of the Nordic countries seem relatively warlike. We interpret this as the willingness to defend an extraordinarily emancipatory lifestyle—a willingness preserved through vicinity to an empire that stands for a different model of society.

The implications of these trends seem significant but further research is needed to confirm, with a broader evidence base, the preliminary findings presented here. Cross-national public opinion surveys should continue to survey people's willingness to fight other countries and should explore more deeply how prevailing notions of military service are changing.

Like all sociocultural trends, this one is reversible. Thus, Russia's recent seizure of Crimea has evoked widespread concern, bringing economic sanctions and a capital flight from Russia. But significantly, no Western leaders—not even the Hawks—have even discussed military intervention against Russia. The norms of the Long Peace remain binding, at least for now.

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¹⁵ For a more detailed consideration, see points (2) and (3) in the review response section of the appendix (pp. 18-21).

¹⁶ For a discussion of what this implies for the democratic peace, see point (8) in the review response section of the appendix (pp. 24-25).

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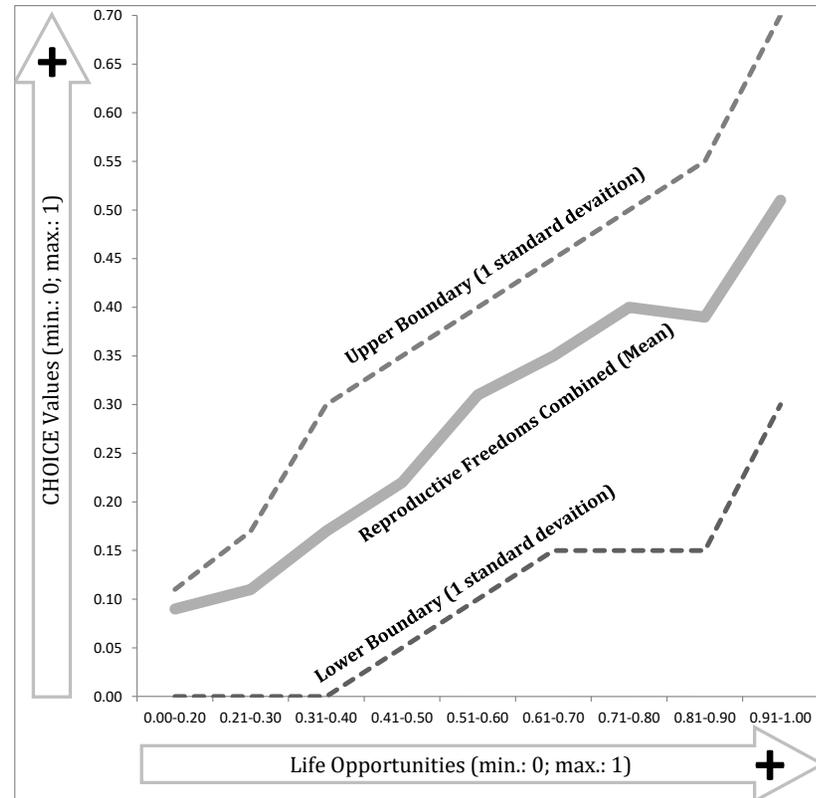
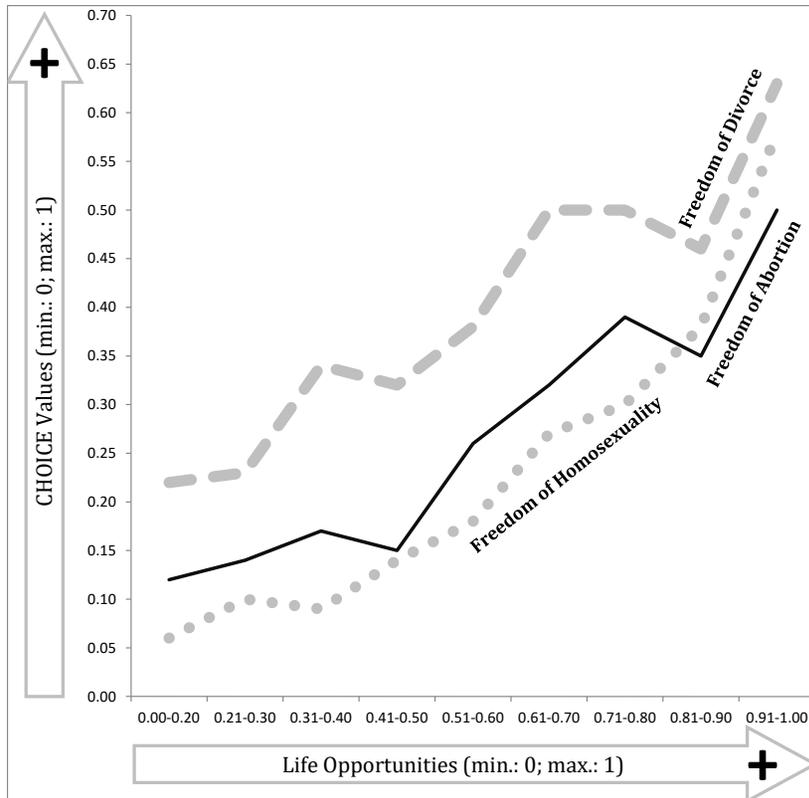
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Figure 1. Choice values by level of life opportunities

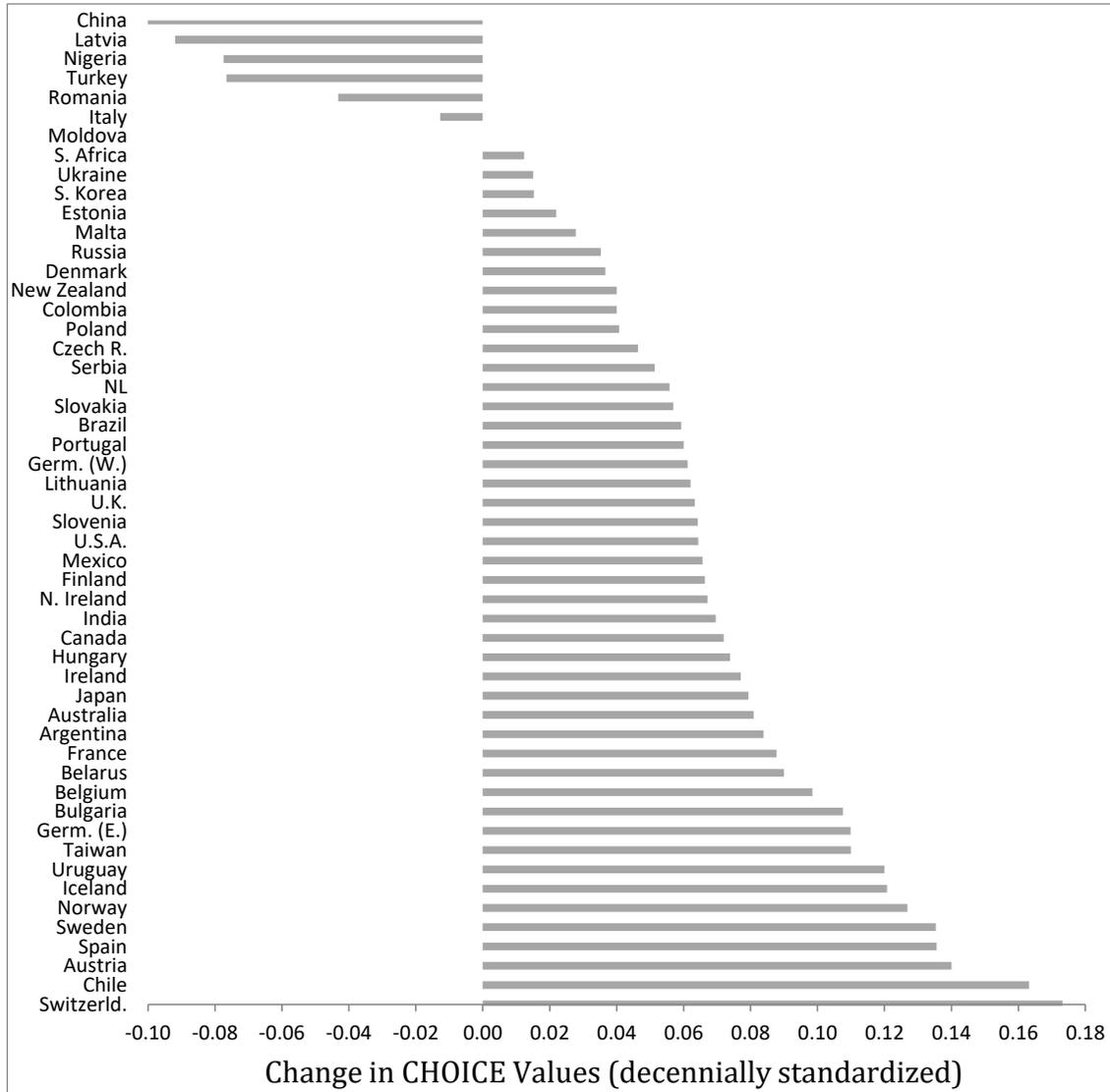


Life Opportunities I Index (respondents per category):

0.00-0.20	8000
0.21-0.30	8000
0.31-0.40	16000
0.41-0.50	14000
0.51-0.60	14000
0.61-0.70	11000
0.71-0.80	9000
0.81-0.90	9000
0.91-1.00	18000

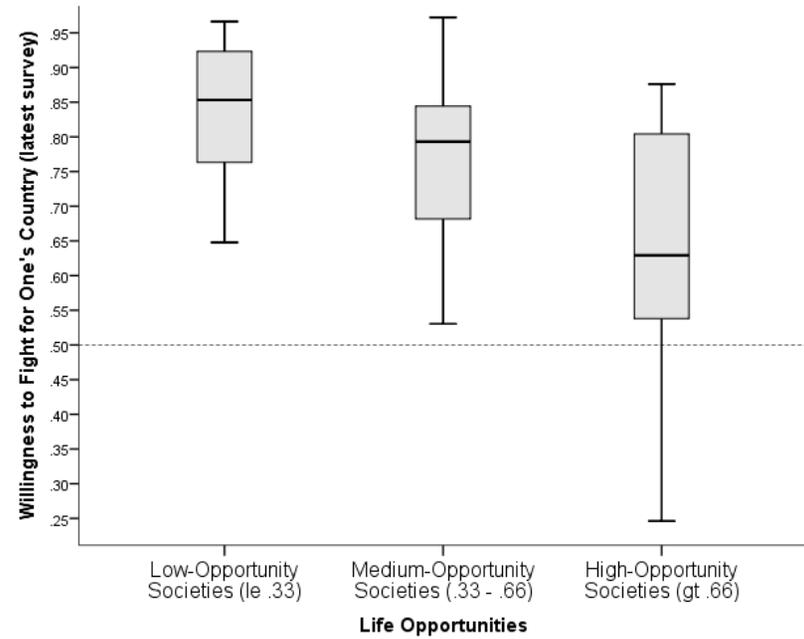
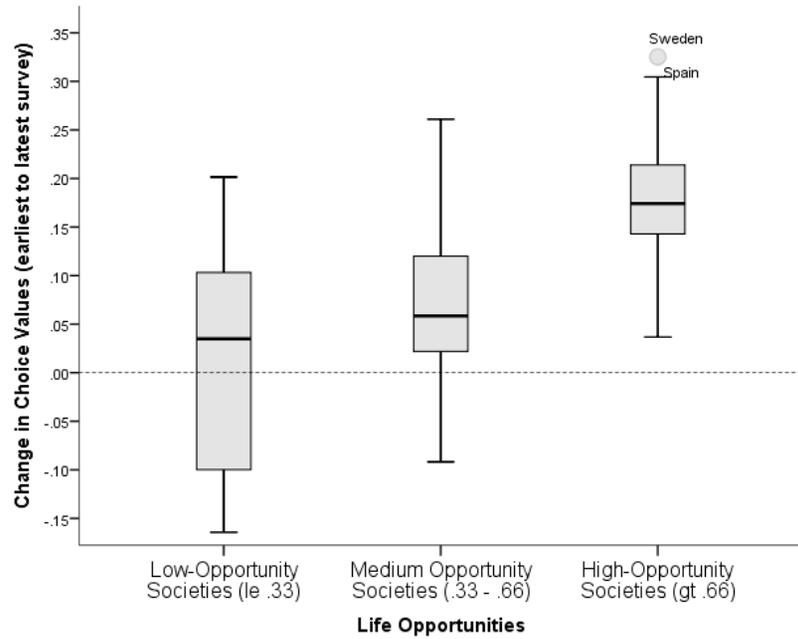
Data from latest available sample per society; national samples weighted to equal size (N = 1,500 per society).

Figure 2. Changes in choice values



Note: Bars show average change scores per national population, from the earliest to latest surveys, for all 52 countries covered by a time series of at least 10 years (WVS/EVS, 1981-2012). Since length of time in change measures varies from country to country, all changes are standardized to the length of a decade.

Figure 3. Changes in choice values and level of willingness to fight for one's country by societies' level of life opportunities



Life Opportunities II Index (at the beginning of the change period)

Low-Opportunity Societies: Brazil, China, Colombia, India, Nigeria, South Africa, Turkey.

Medium-Opportunity Societies: Belarus, Bulgaria, Chile, Czech R., Estonia, Georgia, Hungary, Italy, Latvia, Lithuania, Macedonia, Malta, Mexico, Moldova, Peru, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Ukraine, Uruguay.

High-Opportunity Societies: Argentina, Austria, Australia, Belgium, Canada, Denmark, Finland, France, Germany (E., W.), Iceland, Ireland, Japan, New Zealand, The Netherlands, Norway, South Korea, Spain, Sweden, Switzerland, U.K., U.S.A.

Life Opportunities I Index (1995)

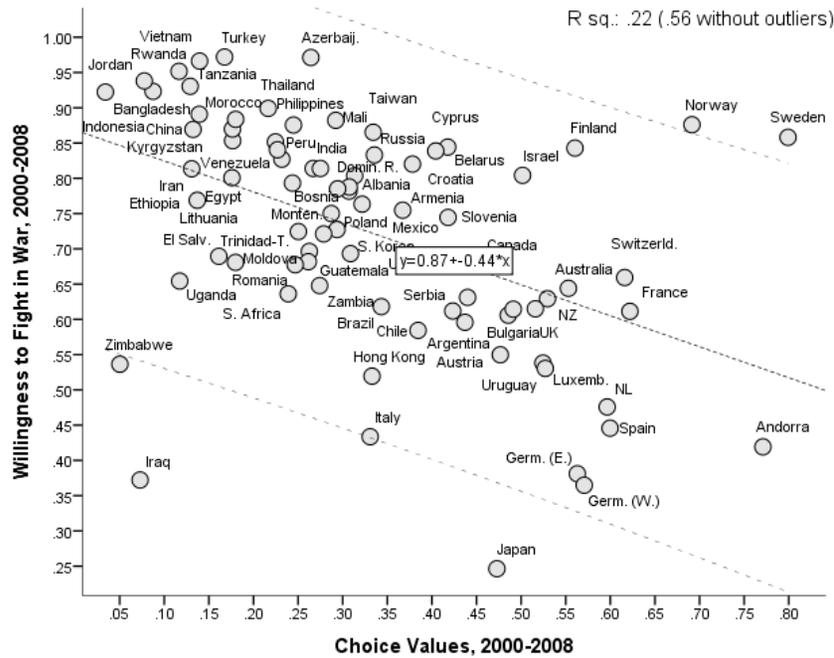
Low-Opportunity Societies: Albania, Algeria, Bangladesh, Burkina F., Ethiopia, Ghana, Guatemala, India, Indonesia, Nigeria, Pakistan, Rwanda, Tanzania, Uganda, Vietnam, Zambia, Zimbabwe.

Medium-Opportunity Societies: Armenia, Azerbaij., Belarus, Bosnia, Brazil, Chile, China, Colombia, Domin. R., Egypt, El Salv., Georgia, Iran, Jordan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Malaysia, Mexico, Moldova, Morocco, Peru, Philippines, Romania, Russia, S. Africa, S. Arabia, Serbia, Thailand, Trinidad-T., Turkey, Ukraine, Uruguay, Venezuela.

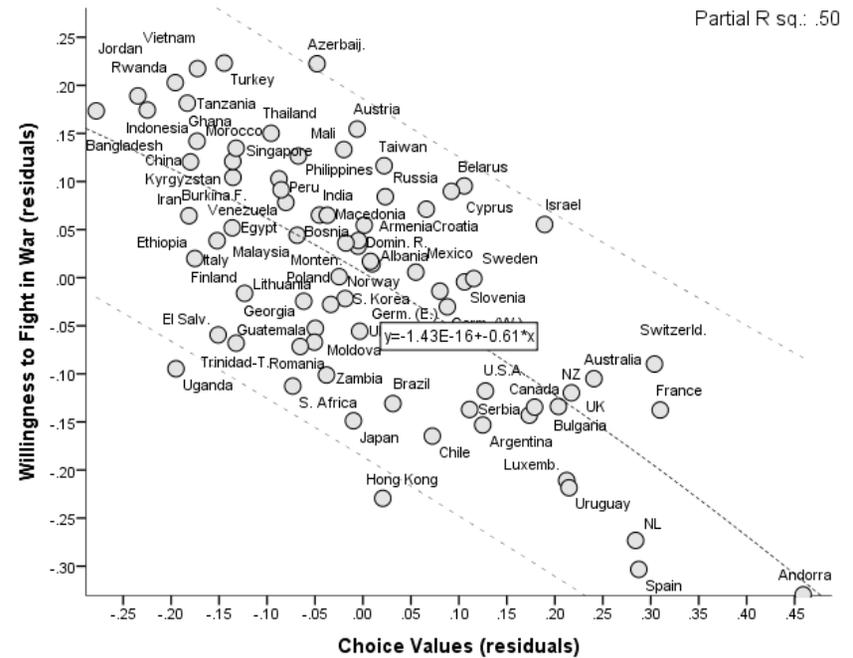
High-Opportunity Societies: Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech R., Denmark, Estonia, Finland, France, Germ. (E., W.), Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Luxemb., Malta, NL, Norway, NZ, Poland, Portugal, S. Korea, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerld., Taiwan, U.K., U.S.A.

Figure 4. Choice values and willingness to fight (before and after controls for Axis or Nordic groups)

Before Controls

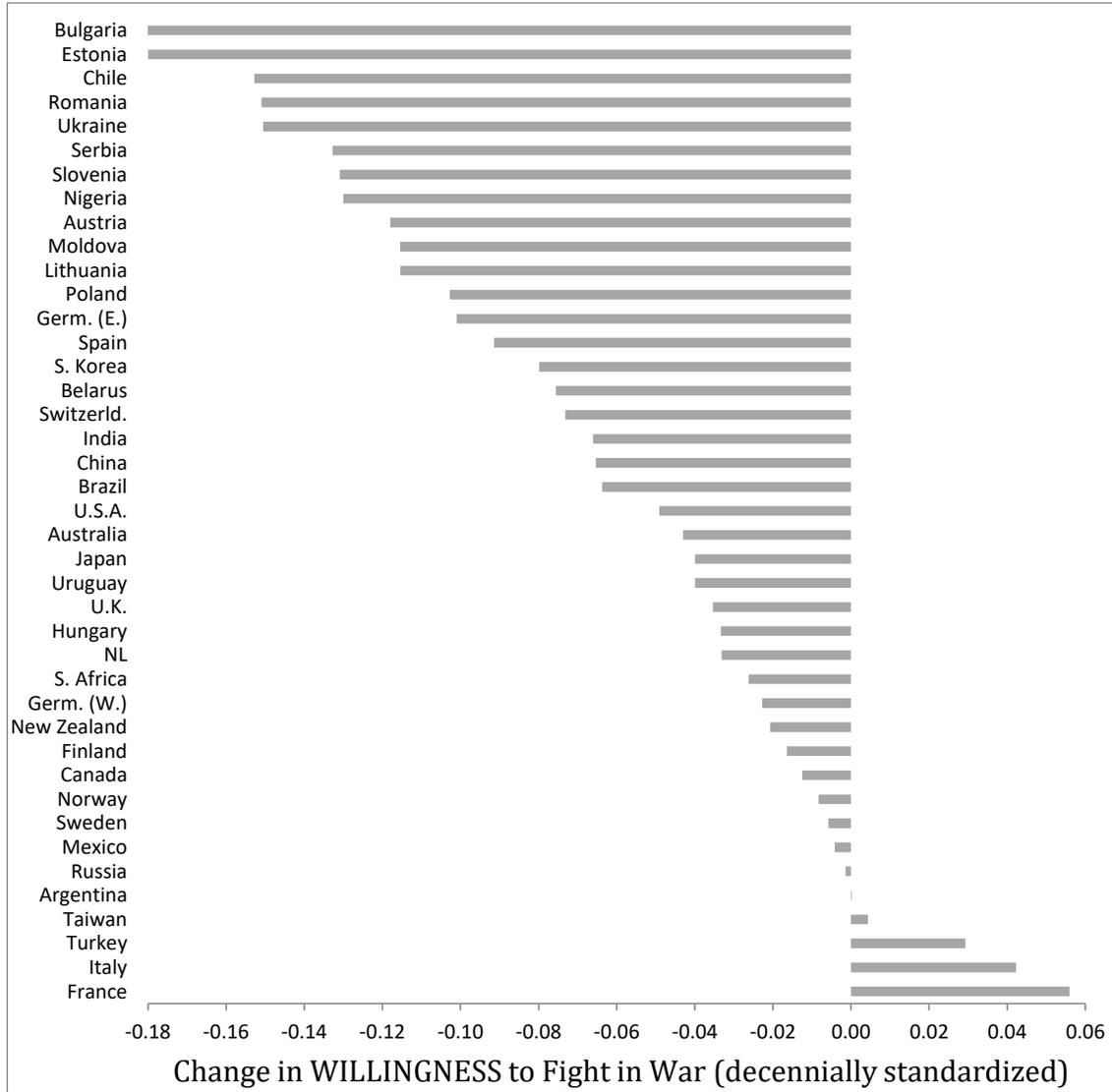


After Controls



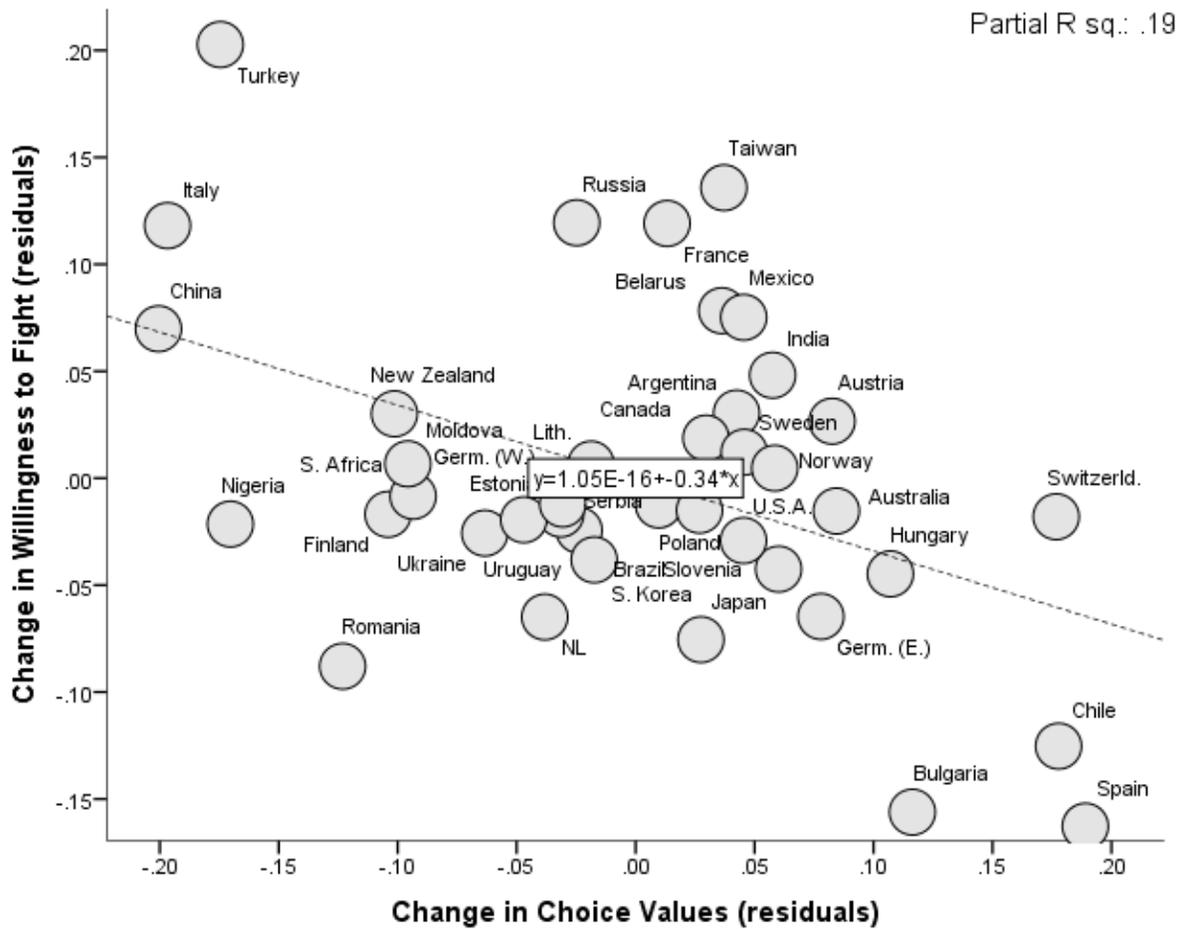
Note: Left-hand diagram shows the cross-sectional relationship between national populations' average score in choice values and their willingness to fight for their country in the case of war. The relationship is shown without controls. The right-hand diagram shows the same relationship, controlling for the Nordic experience and WWII defeat (we see the partial regression plot obtained after including the Nordic and WWII dummies).

Figure 5. Change in people’s willingness to fight for their country in war



Note: Bars show average change scores per national population, from the earliest to latest surveys, for all 41 countries covered by a time series of at least 10 years (WVS/EVS, 1981-2012). Since length of time in change measures varies from country to country, all changes are standardized to the length of a decade.

Figure 6. The dynamic relationship between choice values and willingness to fight



Note: Regression plot visualizing the partial effect of change in choice values on change in willingness to fight from Model 4 in Table 3. The effect is controlled for the two country dummies representing the Nordic experience and the WWII defeat.

Table 1. Explaining willingness to fight for one's country (national-level regression analysis)

PREDICTORS:	DEPENDENT VARIABLE: Willingness to Fight				
	Model 1	Model 2	Model 3	Model 4	Model 5
Life Opportunities I	-.28 (-3.42) ***	-.23 (-3.77) ***	-.05 (-0.60)		
Enduring Democracy	-.07 (-0.92)	-.11 (-1.85) *	-.06 (-1.16)		
WWII Defeat		-.26 (-4.99) ***	-.26 (-5.62) ***	-.27 (-5.04) ***	-.25 (-5.51) ***
Nordic Experience		.25 (3.69) ***	.34 (5.43) ***	.32 (5.34) ***	.34 (5.47) ***
Choice Values			-.59 (-4.58) ***	-.59 (-7.22) ***	-.61 (-8.48) ***
International Cooperation				-.09 (-1.60)	
External Security				.15 (1.50)	
Internal Security				-.08 (-1.55)	
Constant	.93 (22.84) ***	.93 (27.55) ***	.93 (35.13) ***	.99 (20.66) ***	.94 (37.31) ***
Adjusted R-squared	.26	.55	.65	.66	.65
Number of Societies (N)	73	73	73	63	77

Notes: Entries are unstandardized regression coefficients with their T-values in parentheses. All variables normalized into a scale range from a theoretical minimum of 0 to a theoretical maximum of 1.0. Test statistics for heteroskedasticity (White-test) and multicollinearity reveal no violation of OLS assumptions. Variables are measured at the time of the latest survey for each country (1995-2005). Significance levels: *** $p < .001$; ** $p < .01$; * $p < .05$

Table 2. Explaining *change* in willingness to fight for one's country (dynamic regression analysis)

PREDICTORS:	DEPENDENT VARIABLE: Willingness to Fight at time T_2					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Willingness to Fight at T_1	.67 (6.17) ***	.54 (4 .93) ***	.76 (5 .26) ***	.50 (4.92) ***	.70 (8.59) ***	.64 (7.99) ***
WWII Defeat	-.07 (-1.18)	-.08 (-1 .79)	-.01 (-0 .01)	-.11 (-2.41) **		
Nordic Experience	.10 (1.97) *	.15 (3 .08) ***	.05 (0 .70)	.18 (3.09) ***	.15 (2.75) ***	.16 (3.34) ***
$\Delta (T_2 - T_1)$ Democratic Freedoms	-.08 (-1.58)				-.06 (-1.20)	
$\Delta (T_2 - T_1)$ Life Opportunities II		-.16 (-1 .55)				-.11 (-1.10)
$\Delta (T_2 - T_1)$ Internat. Cooperation			-.23 (-1 .77)			
$\Delta (T_2 - T_1)$ Choice Values				-.40 (-3.17) ***	-.26 (-2.13) **	-.27 (-2.20) **
Constant	.18 (2.20) **	.28 (3 .15) ***	.12 (1 .04)	.33 (3 .76) ***	.16 (2.36) **	.21 (2.92) ***
Adjusted R-squared	.71	.77	.71	.80	.76	.78
Number of Societies (N)	41	40	33	41	41	40

Notes: Entries are unstandardized regression coefficients with their T-values in parentheses. All variables normalized into a scale range from a theoretical minimum of 0 to a theoretical maximum of 1.0. Test statistics for heteroskedasticity (White-test) and multicollinearity reveal no violation of OLS assumptions. Influential statistics indicate Taiwan and Romania as opposite-end outliers; Turkey and Spain as opposite-end leverage cases (see Figure 6). Variables are measured at the time of the latest survey for each country (1995-2005). Significance levels: *** $p < .001$; ** $p < .01$; * $p < .05$.

T_2 : Time of latest survey if at least ten years after first survey (15 surveys from WVS round 4 with modal year 2000 and 37 surveys from round 5 with modal survey year 2006; mean year of T_2 is 2004)

T_1 : Time of earliest survey if at least ten years before last survey (23 surveys from WVS round 1 with modal survey year 1982, 22 surveys from round 2 with modal survey year 1990 and 7 surveys from round 3 with modal survey year 1996; mean year of T_1 is 1987).

$\Delta (T_2 - T_1)$: Minimum time distance is 10 years, maximum is 27 years, mean time distance is 17 years.

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