Fatality Sensitivity

Factors Shaping British, Polish and Australian Public Opinion on the 2003 Iraq War

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This paper investigates fatality sensitivity of public opinion in coalition countries that participate in war efforts but are not a leading force. The analysis is based on opinion polls measuring public attitudes towards the involvement in the Iraq war of three countries: the United Kingdom, Poland and Australia. Overall, the data does not provide clear evidence of sensitivity to soldier deaths, which were relatively infrequent, but the war opposition appears to increase in response to terrorism in Iraq. News of success has a power to reduce war opposition, while scandals are costly in terms of public support.

Key words: Iraq war, wartime public opinion, fatality sensitivity, war coalition members.

Introduction
This article analyses the attitudes of public opinion in three coalition countries, the United Kingdom, Poland and Australia, towards their involvement in the Iraq war and how it responded to war-related events such as soldier and civilian deaths. Although the dynamics shaping war-time opinion in countries that play only a supporting role in a conflict are likely to be different from those typical for a coalition leader, they have not received much attention in existing literature. This

is in spite of the fact that a decision to commit armed forces to war is among the most vital decisions any government can take. Military operations require public support because it is the citizenry who pays the price of war with their lives, health and taxes. Thus, knowledge of factors influencing public opinion is central to providing and sustaining support for government actions. It gives policy makers indications into what is permissible and intolerable from a political point of view. Consequently, a study of public opinion regarding armed conflict is important from both academic and political perspectives.

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The war in Iraq, which began on 20 March 2003, occupied news services and national agendas of many countries for several years, and to this day polarises opinions. The invasion led by the United States was justified by the claims of Iraq's alleged possession of weapons of mass destruction (WMD) and the perceived threat of Saddam Hussein's regime to America and her allies. The swift invasion rid the world of a gory dictatorship, however it was soon followed by a bloody insurgency which within seven years claimed the lives of over 100,000 civilians[1] and 4,700 coalition soldiers.[2] The Multi-National Force, henceforth MNF, which became responsible for military operations in the country after the initial invasion, included troops from nearly 40 countries and at its peak comprised 176,000 personnel.[3] However, only four countries participated directly in the major combat phase, the United States, the United Kingdom, Australia and Poland, and as such were active in Iraq from March 2003.[4] While war-time attitudes of American public opinion have received significant attention from researchers,[5] little is known about determinants of war-related opinion in coalition countries, i.e. those that are not a core force behind military operations but contribute troops to support a combat mission initiated and led by another country. To fill in the existing research gap, the focus of this article is on the British, Polish and Australian public opinion towards the countries' participation in the Iraq war. These three coalition forces, although only a fraction of the numbers deployed by the United States, were among the largest sent by the MNF members.[6] Their role was further emphasized by granting them command of two multinational divisions: South-East to Great Britain and Central-South to Poland.

This study hypothesizes that the patterns governing such opinion differ from those typical for coalition leaders. The possible reasons behind dissimilar reactions to events in the theatre of war stem from the very different degree of political and military involvement. These

countries only support the ongoing operations and therefore their responsibility and risks are lesser than those of a coalition leader. Their withdrawal from combat is unlikely to have a pivotal impact on the war outcome and the consequences of such a move would be mostly limited to strained relationships with the coalition leader, i.e. the United States in the case of the Iraq war. Regardless of the supporting forces' performance, international condemnation in the event of failure is likely to concentrate mostly on the coalition leader. This way, even if the Iraq war was lost, the blame would be placed largely on the United States, not other MNF members. Being in such a "comfortable" situation, governments and citizenry of the supporting states may see a larger divergence between their national interests and the war operations. Not being a superpower, smaller countries are unlikely to feel and act like a "world's policeman" and their interest in global politics may be of a narrower scope than that of the United States. For instance, Poland and Australia did not have traditions of large combat missions aimed at conquering remote regions or regime changes. Furthermore, the two countries were not exposed to international terrorism as much as the United States and Great Britain,[7] therefore their gains from toppling a terrorism-supporting regime should be relatively smaller. The need for research into the public opinion of war supporting states is further aggravated by the fact that previous studies characterize conflicts by the patterns of accumulation of U.S. soldier deaths.[8] Because of a smaller size and a different nature of deployment, the number of deaths is likely to grow differently among the coalition troops. For instance, the death toll among American soldiers amounted to 2.5 percent of the country's maximum deployment in the post-invasion period. The corresponding number for the United Kingdom and Poland was approximately 1 percent, and it was negligible for Australia.[9] This difference is an outcome of the fact that soldiers from the countries in question were likely to participate in less dangerous operations, and Australian troops were kept from life threatening actions.[10]

This divergence of objectives, degree of involvement as well as relatively lower cost in terms of soldier deaths are likely to focus public opinion in coalition states on other signals of war progress. In addition to responding to losses of national troops, which represent a direct cost of war to a nation but occur at low frequency for the coalition members, it is hypothesised that the public is sensitive to instability and the severity of terrorism in Iraq. The latter is considered as a measure of

war progress, where more violence signals failing efforts. Such reasoning is in line with the cost-benefit decision making framework, where the public is supposed to consider both sides of the equation before forming their opinion. Thus, the study's efforts are concentrated on determining the degree to which public opinion in coalition countries responds to own soldier deaths as well as instability in Iraq measured by the number of terrorist attacks and resulting deaths.

This study employs the error correction model (ECM) to analyse how the war opinion is influenced by combat deaths and the magnitude of terrorism in Iraq. This method offers two considerable advantages. First, it tackles the problems of non-stationarity which plague opinion and fatality series. Second, it has a long memory and a shock in one period is allowed to affect time series throughout subsequent periods. It is expected that an increased fatality rate in one period raises war opposition. Although in subsequent periods the death toll may be much lower, the public may be influenced by the memory of earlier events and unwilling to scale down their opposition to the level suggested by the smaller death rate in the most recent time interval. In other words, an effect of a jump in fatality series on war opinion is likely to take more than one period to die out.

The empirical analysis returns results consistent with the expectations. However, the significant positive impact of soldier deaths on war opposition can be confirmed only for the United Kingdom. The lack of similar effects in Poland and Australia might be attributed to a relatively small number of soldier fatalities leaving the opinion dominated by other factors, including terrorism in Iraq. The public in all three countries appear to be sensitive to the information on the number of people killed in terrorist attacks. The Poles, who were highly antagonistic to the war at its onset, significantly reduced their opposition after the invasion ended in May 2003. This could have been helped by the fact that the country did not incur any human losses during the first two months of the war and the benefit of defeating the brutal dictatorship seemed to have been achieved at a small cost. The British public responded in a similar manner after the capture of Saddam Hussein, which must have been perceived as a war success. The opposition in both countries sharply increased after the release of the torture pictures from Abu Ghraib. Here, however, part of the effect may have come from the Madrid bombings, which happened within the same polling period. Surprisingly, there appear to be no significant

effects of the London bombings of 7 July 2005 on the British war op-position.

The results of this article may be interpreted as a policy-relevant guidance for governments considering involvement in a multinational war coalition. In particular, it identifies the channels that affect the war-related views of the citizenry, and therefore should become a fo-cus of policy makers' attention. For example, it confirms that scandals such as torture in Abu Ghraib prison are very costly in terms of public attitude and their effect is difficult to reverse. It also shows that the public is responsive to deaths of Iraqis suffered from terrorism. Hence, maintaining war support requires an effective stability-promoting and counter-terrorist strategy as a part of the war effort. This implication is important also for the coalition leader, the United States, in whose interest it is to maintain positive war attitudes among the public across the coalition in order to keep allies committed to a military interven-tion.

The reminder of this article is organized as follows. The next section offers literature review. The ensuing two sections present data sources and properties, which are then followed by the discussion of the esti-mation method and results. The final two sections offer discussion and concluding remarks.

Literature review

Existing literature pays the most attention to reactions of the American public to the use of the armed forces. A pioneering study on the topic uses the "log of cumulative soldier deaths" (the natural logarithm of the total number of casualties that have occurred at the time of a survey) to analyze public attitudes to the Korean and Vietnam wars.[11] Its main finding, that the war support drops in proportion to the "log of cumu-lative fatalities," leads to the conclusion that the American public are sensitive to relatively small losses in early stages of war, but only to large losses in later stages. This is contested by other researchers who empha-size the importance of accounting for war weariness (a duration-based opposition).[12] Including controls for conflict duration leads to a conclu-sion that the level of marginal fatalities has better explanatory power than cumulative fatalities when marginal fatalities are increasing; when they are decreasing, the log of cumulative fatalities performs better.

Numerous studies seek an explanation to changes in war support in factors other than casualties. For example, public support for con-

flict has been linked to the principal policy objectives, which posit that the public may be less sensitive to fatalities in certain types of military interventions.[13] The "elite cue theory" on the other hand suggests that support for conflict is shaped by a degree of consensus or divergence in elites' opinions regarding the war and when political leaders share their support for the conflict, the public tends to support it too.[14] A lack of consensus brings a polarisation effect which is demonstrated by a split in the public opinion. The influences of the principal policy objectives and elite cues are assumed to be complemented by the nature of media coverage of a conflict. There is also evidence indicating that Americans are more likely to support military actions if they are a part of a multilateral operation.[15]

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The drop in the American public support for the Iraq war appeared faster than during the wars in Vietnam and Korea, which could be explained by the public perception of the stakes in Iraq being less important than during the former conflicts.[16] Another early study of the public opinion towards the Iraq war considers the influence of American fatalities on the presidential rating. The impact of soldier deaths on presidential approval is shown to vary between the stages of the war, nonetheless, expectations of success of the mission are argued to have a much stronger impact on president's popularity than war casualties.[17] These conclusions should be taken with caution for a number of reasons. First, the study covers only the first 20 months of the war, thus the observed patterns may be misrepresentative for its whole duration. Second, since news services tend to report the cumulative death counts from the beginning of the war, it is unreasonable to expect the public to form their opinion for respective phases separately. Third, using presidential ratings is problematic as they are influenced by numerous factors and it is difficult to extract a pure war component.[18] Nonetheless, a comprehensive study of fatality sensitivity across a sample of conflicts reinforces the conclusion that American public is "defeat phobic, not casualty phobic."[19]

All the research cited above focuses on U.S. public opinion and there have been very few studies that link war casualties to the war support or opposition in the three coalition countries in question. The available literature discusses British public opinion and concentrates mostly on the Falklands war of 1982. What all these studies have in common is that they look at the popularity of the governing party, not the public support for war. Moreover, they tend to model the war period

with indicator variables, and hence do not account for the intensity of the conflict and its human costs.[20] In a recent attempt, attitudes of the British public towards the involvement in Libya in 2011 have been analyzed and compared with attitudes in other countries as well as those towards the wars in Afghanistan and Iraq. Nonetheless, the purely descriptive approach of that study does not permit drawing generalizable conclusions on potential determinants of the war-time opinion.[21]

This article is closest to the work of Mueller and Gartner and Segura[22] as it identifies the human cost of war as a chief determinant of public opinion. However, it uses a more efficient estimation method which deals with problems typical for opinion poll and fatality series. It also allows the public to react to deaths incurred by citizens of the invaded country.

Data

The data are drawn from several sources. The information on the opposition to the Iraq war was collected from three pollsters, YouGov, CBOS and Roy Morgan for the United Kingdom, Poland and Australia, respectively.[23] The choice of the opposition scores as a dependent variable is motivated by governments being chiefly concerned with avoiding political sanctions for their military endeavors, and less with maintaining war support.[24] The British were asked the following question: "Do you think the United States and Britain are/were right or wrong to take military action against Iraq?", forty times between 18 March 2003 and 7 June 2007 (see Panel 1 of Figure 1). Approximately 2,000 respondents took part in the survey, which was conducted with varying frequency. In 2003 and 2004, when the Iraq war dominated public debate, YouGov carried out 22 and 11 polls, respectively. In 2005 the number fell to three polls, and in 2006 and 2007 there were only two surveys each year. Until May 2004 the majority of respondents saw the military action against Iraq as the "right" thing. As the invasion began, 53 percent were in favor of the use of military force and 39 percent were against it. The support for the invasion reached its maximum of 66 percent on 10 April 2003; the same survey showed the lowest opposition of 29 percent. The poll conducted after the release of pictures of torture of Iraqi prisoners in April 2004 showed that, for the first time, the majority did not support the war. The fraction of those who perceived the conflict as wrong reached 60 percent in April 2007, at the same time the "right'"answer was given by 26 percent.

Poland was the only country of the three where the opponents of sending troops to Iraq were always in the majority. CBOS conducted 31 surveys in which a typical sample of around 1,000 adults were asked "Do you support the participation of Polish soldiers in the mission in Iraq?"[25] The initial opposition of 73 percent fell to 45 percent in May 2003 (see Panel 2 of Figure 1). This was also the time when the support for sending troops to Iraq reached its peak of 45 percent. As sectarian violence engulfed Iraq, the Poles grew less comfortable with the country's involvement in the military operations. The opposition bounced back to 70 percent in the second quarter of 2004 and exceeded 80 percent in 2007.

The Australian public was asked about their opinion on the involvement in the Iraq war less frequently. The most consistent survey was conducted by Roy Morgan between 19 March 2003 and 20 April 2006, typically on a sample of over 500 respondents. The question "Now thinking about Iraq — In your opinion should Australia have a military presence in Iraq?" was put forward ten times (see Panel 3 of Figure 1). The Australian opinion remained split fairly in the middle over the polling period, with differences between *yes* and *no* oscillating between 2 percent and 5 percent. The situation changed in 2006, when the opposition of 59 percent exceeded the number of supporters by 24 percentage points. Unfortunately, there are no polls available that could reflect the effects of revelations suggesting that the Australian government had sent troops to Iraq under the condition that its wheat trade with the country was protected.[26] Notably, neither the Polish nor the Australian polls showed the "rally-around-the-flag" effect.[27]

Data for the explanatory variables are taken chiefly from two sources: iCasualties.org and the MIPT Terrorism Knowledge Base.[28] The latter draws from open sources and provides information on acts of terrorism defined as violence for political purposes by sub-national actors, designed to induce fear and anxiety in order to influence behavior of an audience beyond that of immediate victims. MIPT recorded 9,656 terrorist incidents (of which 593 were classified as international) that took place in Iraq between 20 March 2003 and 31 December 2007, and caused 26,147 fatalities. This number represents mostly civilian deaths as the database concentrates on non-combatant targets; only 0.6 percent of incidents recorded involved military targets. The incidence of terrorism in Iraq seems to be particularly large when compared to the overall number of 10,237 international terrorist attacks

recorded globally within 40 years to 2007. The number of fatalities is used as an explanatory variable because, although it shows the same effects as the number of attacks, it provides better goodness of fit of the model. This suggests that public does not react only to the number of attacks, but is also sensitive to their severity.
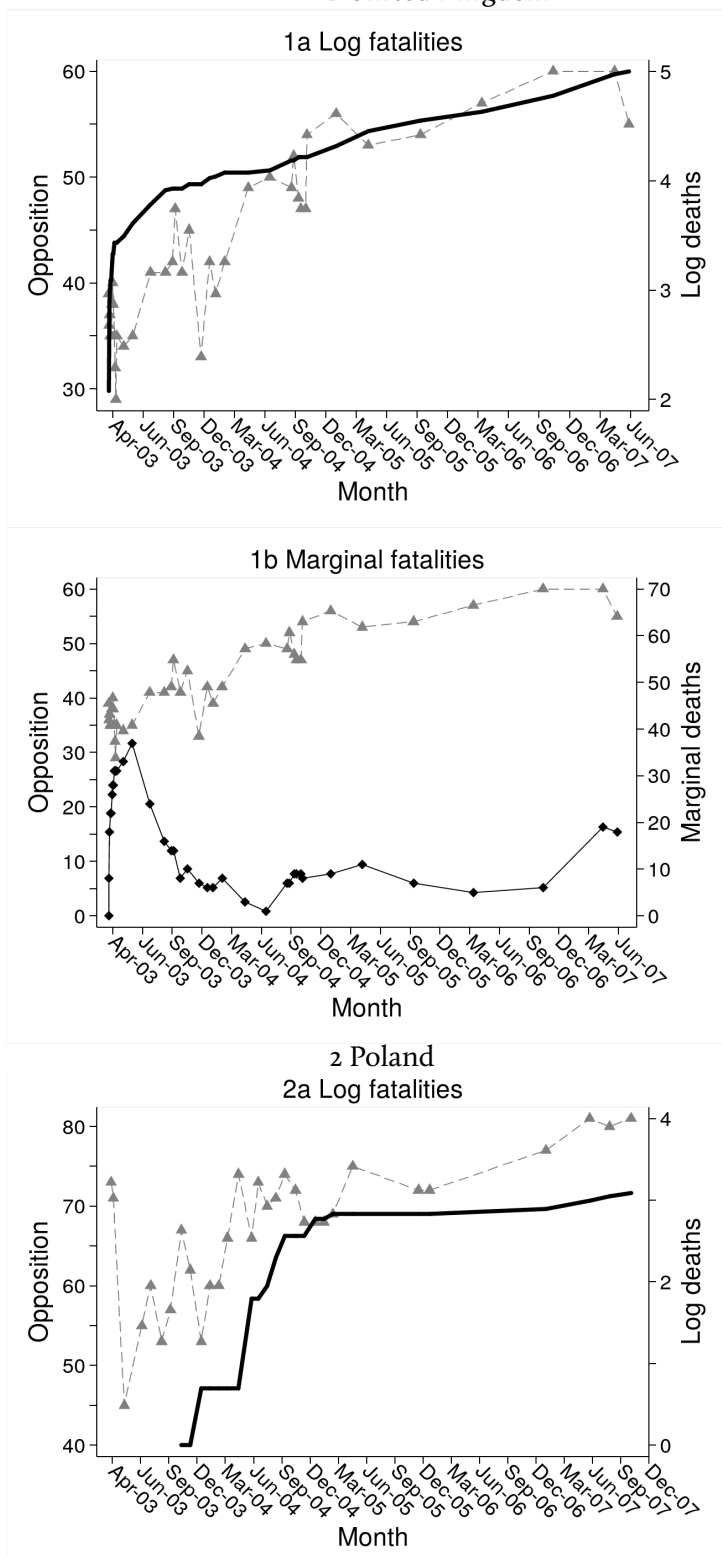
iCasualties.org, also known as the Iraq Coalition Casualty Count, is an independent online service containing information on soldier fatalities in the Iraq and Afghan wars. The website provides such details as the date of an incident, victim's country of origin, rank, age, name and location of military unit, and a cause and place of death. This information is gathered from news reports and press releases issued by the U.S. Department of Defense, the U.S. Central Command, the MNF, and the British Ministry of Defence. As of 31 August 2010, the database listed 4,734 fatalities in Iraq with a vast majority of 4,416 incurred by the United States. The United Kingdom, Poland and Australia lost 179, 23 and 2 servicemen, respectively. The death toll in 2003 amounted to 580 troops, including 53 British and 2 Polish combatants. During the four following years, MNF lost around 900 soldiers each year, followed by a decline to 322 and 150 fatalities in 2008 and 2009, respectively. The period from 2004 to 2007 brought on average 30 fatalities a year among the British troops and 5 among the Polish. Australia incurred two casualties in non-hostile accidents, one in 2005 and another one in 2006.

Graphical analysis

Figures 1 and 2 provide a graphical comparison of war opposition in the three countries with soldier deaths and fatalities in terrorist attacks that took place in Iraq. The plots on the left-hand side present log of cumulative fatalities, while those on the right-hand side show marginal deaths, which are calculated as a number of fatalities within 120 days preceding a poll date. For instance, the observation on 1 May 2005 is a number of fatalities that occurred between that day and 1 January 2005.[29] Since Australia lost only one serviceman during the sample period, Panel 3 of Figure 1 shows Australian opposition scores with a vertical line marking the date of this event.

The swift invasion in the first weeks of the conflict was largely regarded as a success, which seems the most likely explanation behind the drop in opposition numbers in the three coalition countries. Thereafter, as Iraq immersed in sectarian violence and the insurgency

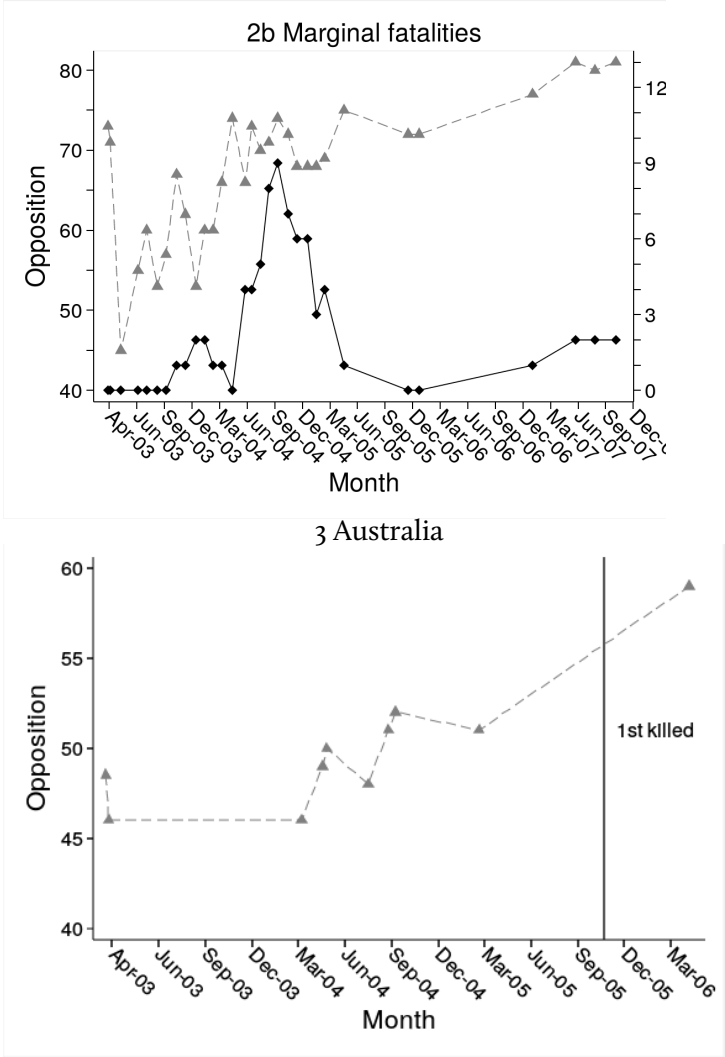Figure 1 - Opposition to the Iraq war and soldier deaths

1 United Kingdom

1a Log fatalities

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1b Marginal fatalities

2 Poland

2a Log fatalities

2b Marginal fatalities
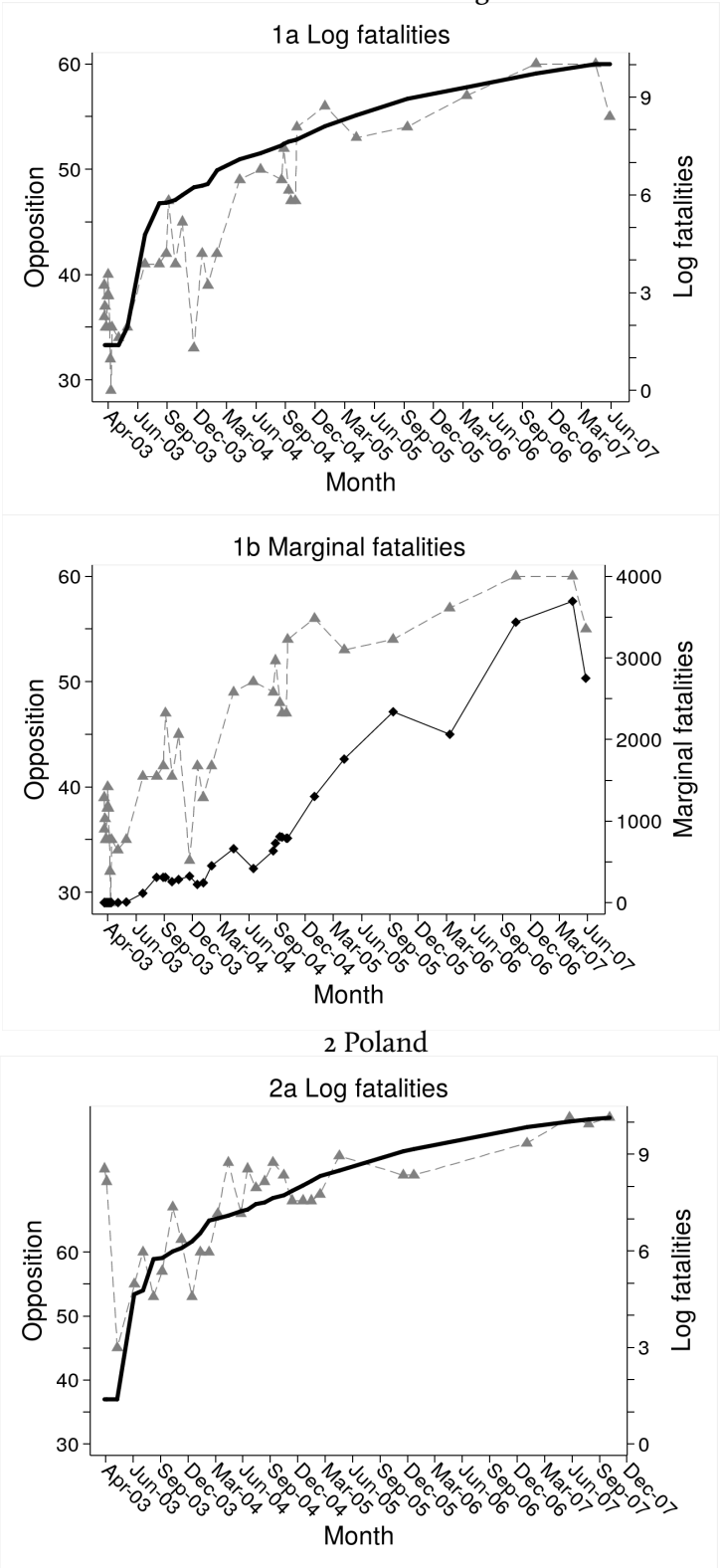

3 Australia

Figure 2 - Opposition to the Iraq war and terrorism fatalities
1 United Kingdom

1a Log fatalities

1b Marginal fatalities

2 Poland

2a Log fatalities

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2b Marginal fatalities

3 Australia

3a Log fatalities

3b Marginal fatalities
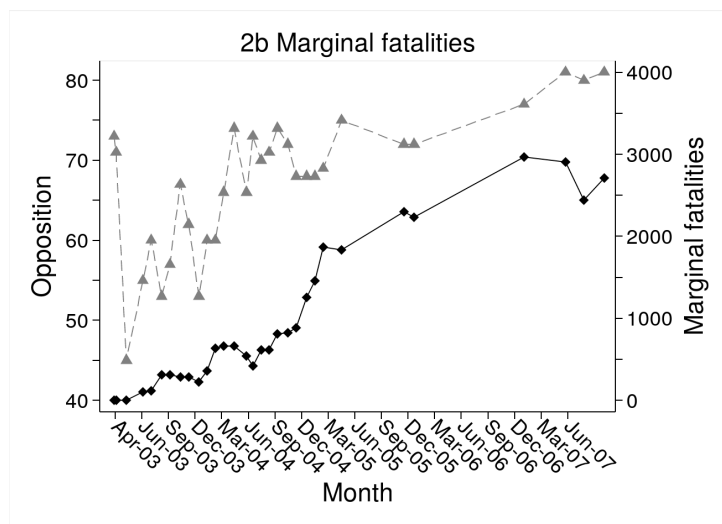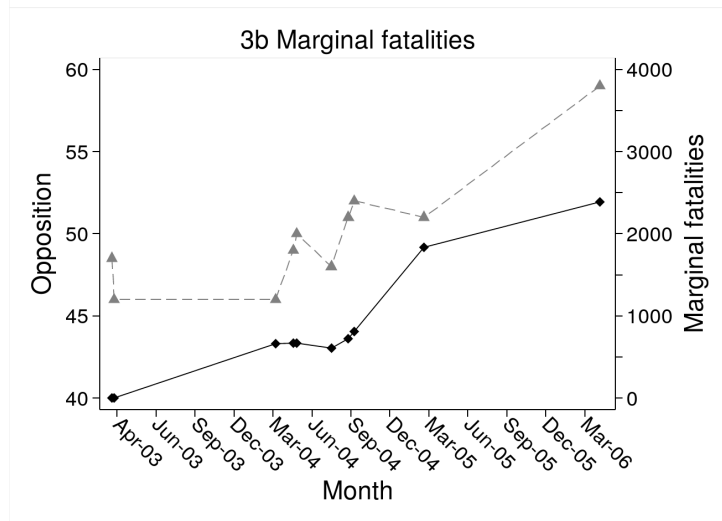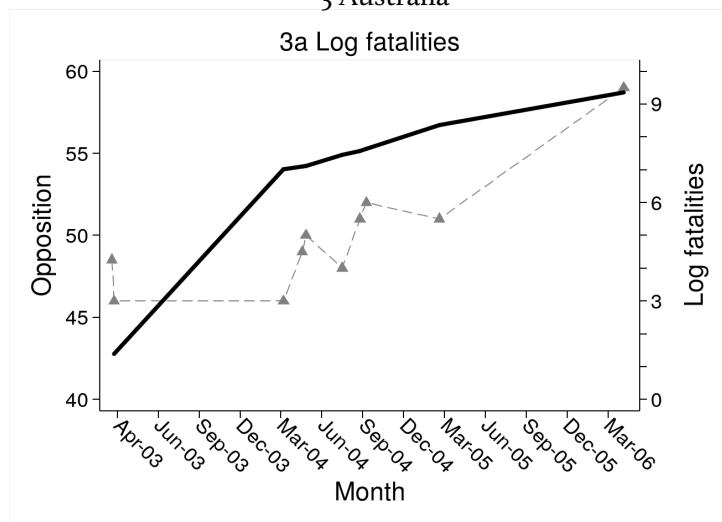
gained strength, the public enthusiasm for the war diminished, which is reflected in the rising share of those who opposed the military operations. The insurgency was associated with an increase in fatalities incurred by the United Kingdom and Poland, depicted as the log of cumulative soldier deaths and marginal fatalities in Figure 1. Nonetheless, the British death toll swelled during the invasion period, which left Poland's forces unharmed. Great Britain suffered the highest losses and the fastest accumulation of fatalities among the three countries. The Poles started paying with their lives later in 2003, and incurred the highest losses in 2004 and 2005. Australia did not have any fatal incident until 2005.

Judging by Figure 1, British opinion seems to show signs of the "rally-around-the-flag" effect. Although the casualties rose rapidly during the first weeks of the invasion, the opposition to the war appears relatively small (Panel 1). The lack of human losses on the Polish and Australian sides prevents us from drawing a similar conclusion for these countries. The plots of the log of cumulative fatalities suggest that it may have a potential to explain changes in the war-related public opinion. This is particularly true for the periods of a steady rise in opposition after summer 2004. However, the possible relationship between the log of cumulative fatalities and war opposition is less clear in the earlier periods, when the opinion is more volatile and accumulation of soldier deaths more rapid. The marginal fatalities, depicted on the right-hand side of Figure 1, may explain declines in opposition better than the log of cumulative casualties. This is due to the fact that, unlike cumulative values, marginal casualties are not monotonic and can fluctuate with opinion.[30] The relationship between the war opinion and marginal casualties seems to be weaker in the later months, when fatalities stay relatively low and opposition gradually increases. Because of very few data points available, it is impossible to draw permitted conclusions from the graphical analysis of the Australian series. The most noticeable point in Panel 3 is an increase in the war opposition following the first death among ADF soldiers. Nonetheless, it is hard to attribute that change to this fatal event as it was a non-hostile accident. It is likely that some other factors, beyond the scope of this article, contributed to changes in Australian opinion.

The three coalition countries suffered only a fraction of deaths incurred by the United States, whose public opinion constitutes the focus of most studies. Therefore, another measure of violence and in-

stability in Iraq is introduced – a number of people killed in terrorist attacks. This variable is used to test the hypothesis that public in the coalition countries is sensitive to occurrence and intensity of terrorism in Iraq.[31] Since soldier deaths are relatively rare, frequent and gory terrorist attacks are likely to occupy news services more often and as such may affect public opinion to a greater extent. Figure 2 demonstrates the log of cumulative and marginal deaths from terrorist attacks in Iraq. As before, the log of cumulative fatalities seems to reflect the overall direction of changes in public opinion fairly well. However, due to its monotonic nature, the variable fails to explain drops in the opposition, such as the one in the United Kingdom in the last quarter of 2003. Marginal fatalities (for 120 days preceding a poll date) also appear to reflect the rise in opposition, but additionally they seem to mirror downward changes. For instance, the decline in the war unpopularity in Britain in 2007 is mirrored by a drop in marginal fatalities. Even changes in Australia's public opinion seem to somehow follow marginal deaths in terrorist attacks.

The graphical analysis does not provide an answer to whether the log of cumulative fatalities or marginal deaths is a better predictor of public opinion, or whether they should be used in conjunction.[32] The problem with logged cumulative fatalities is that they continuously increase in time. Although more capable of capturing shocks and temporary changes in the intensity of the conflict, marginal fatalities may underperform in capturing long time patterns of the war. It is also likely that some exogenous events, for instance the terrorist atrocities in Madrid, the release of pictures of torture on Iraqi prisoners in 2004, or an election calendar, could exert a significant impact on public attitudes towards the war. The following section provides a more formal empirical set up for analyzing the effects of the above variables on war-related opinion in coalition countries.

Empirical approach

Many of the previous studies on casualty sensitivity seem to ignore the fact that public support as well as casualty series are most likely to be nonstationary.[33] A failure to account for nonstationarity may lead to spurious regressions, i.e. misleading standard errors may result in a model that shows a relationship that does not exist.[34] A remedy to this problem is an error correction model (ECM), which is based on a notion that a true relationship will be preserved by first differencing,

whereas a spurious one will not survive the process.[35] The model's dynamic nature captures short-term shifts and long-term trends of public opinion in response to changes in explanatory variables, provided that variables cointegrate. This study employs a single-equation ECM which appears to be commonly used in studies of public opinion.[36] The model relates current changes in the war opposition to the contemporaneous changes in the magnitude of violence, the extent to which the series were outside of their equilibrium relationship in the previous period, and exogenous events. It may be written as follows:

$$\Delta OPPOSITION_t = \alpha_0 + \beta_1 OPPOSITION_{t-1} + \beta_2 \Delta FATAL_t + \beta_3 FATAL_{t-1} + \beta_4 EVENTS_t + \varepsilon_t,$$

where *FATAL* is either the number of fatalities among nation's soldiers or killed in terrorist attacks. *EVENTS* includes the end of the invasion of Iraq (1 May 2003), the capture of Saddam Hussein (13 December 2003), the terrorist attack in Madrid (11 March 2004), and the revelation of widespread prisoner abuse at Abu Ghraib prison (April 2004).[37] α_o and ε_t are a constant and an error term, respectively.

An advantage of using ECM is the ability to capture the series' permanent memory, i.e. allowing the public opinion to be permanently affected by the shocks in explanatory variables. This characteristic is particularly valuable as the impact of violence occurring in period *t* on public opinion may be dispersed across several following periods. One can imagine a situation in which an increased fatality rate at period *t* causes the war opposition to soar. Although the fatalities may be considerably lower in following periods, the public might be affected by the memory of the earlier death toll and unwilling to scale down their opposition. Panels 1b and 2b of Figure 1, where large declines in marginal deaths are not followed by immediate downward adjustments of opposition, suggest that such a scenario is plausible and a surge in fatalities may have a long lasting effect on the opposition series. Before the regressions could be run, appropriate tests were undertaken to confirm that the time series included in each regression are indeed cointegrated.[38] The following section presents the study's empirical results.

Results

Following the insights from the data section, it cannot be ruled out that both the log of cumulative fatalities and marginal fatalities have explanatory power for the changes in the war opposition. The ensuing discussion begins with the results based on the former measure, which appears to give a better overall fit than marginal fatalities.[39]

Table 1 presents estimation results where *FATAL* is measured as a log of cumulative fatalities of a specific type and the dependent variable, *OPPOSITION*, is measured on the 0–100 point metric scale. The National fatalities variable contains deaths incurred by either British or Polish troops. Model diagnostics displayed in the bottom of Table 1 indicate that all models but one offer reasonable fit to the data. Model 4 suffers from heteroscedasticity (Breusch-Pagan χ^2 = 7.97), which could be attributed to the lack of explanatory power of the cumulative Polish fatalities. Regression coefficients behave as anticipated. The error-correction parameter (*Opposition$_{t-1}$*) in models 1 through 3 suggests that shocks to British opposition inflicted by fatalities in Iraq are gradually corrected and dissipate over time. However, the interpretation of this coefficient is problematic due to uneven spacing of the poll data.

Assuming that the estimates of the error correction parameter are correct and interpretable, a conventional analysis would indicate that shocks in model 3 are corrected at a rate of 98 percent, which means that only 2 percent of an effect remains after one period and 0.04 percent after two periods. Thus, although the public does not forget past fatalities when forming opinion, their effect dies out relatively fast. In four models, mostly on Poland's side of Table 1, the error correction parameter is less than -1, suggesting a possibility of the hypersensitive nature of public opinion to fatalities. Model 5 explains the highest proportion of variability in the Polish series and appears to provide the best fit. It suggests that shocks to long-run equilibrium between the opposition and fatalities in terrorist attacks are corrected at a rate of 104 percent. Thus, the Polish public "overreacts" to the news of fatalities by 4 percent within the first period. This is then corrected over ensuing periods, with a 0.16 percent correction after two periods, a negligible overcorrection after three periods, and eventually reaching the long-run equilibrium state. As models 2 and 5 indicate, the public in both countries responds to terrorism intensity in Iraq, however, the Poles seem to be more sensitive to incoming information. This could be caused by the fact that never before had Poland contributed

Table 1 - ECM estimates based on logged cumulative fatalities

	United Kingdom			Poland		
	1	2	3	4	5	6
Opposition$_{t-1}$	-0.89** (0.16)	-0.67** (0.14)	-0.98** (0.16)	-0.94** (0.19)	-1.04** (0.13)	-0.87** (0.15)
Δ Ln National fatalities$_t$	15.94** (5.28)		9.68 (5.00)	-2.88 (5.10)		-6.73 (3.35)
Ln National fatalities$_{t-1}$	9.56** (3.08)		1.94 (3.79)	2.46 (1.93)		-2.3 (1.60)
Δ Ln Terrorism$_t$		1.27* (0.64)	1.39* (0.68)		2.12 (1.34)	3.19* (1.54)
Ln Terrorism$_{t-1}$		0.98* (0.43)	1.87** (0.73)		3.47** (0.59)	3.51** (0.71)
End of invasion	0.18 (1.96)	0.34 (2.15)		-13.16* (6.18)	-25.98** (4.77)	-24.95** (4.94)
Capture of Saddam	-3.51 (2.01)	-3.43 (2.18)	-6.01** (2.11)	-0.07 (4.02)	-5.68* (2.71)	
Torture / March 11	8.52** (2.31)	7.86** (2.42)	8.96** (2.12)	9.28* (4.40)	9.19** (2.78)	8.68** (2.91)
Constant	-0.78 (7.80)	22.66** (4.54)	24.45* (11.61)	67.12** (14.97)	69.32** (9.93)	56.55** (11.64)
Model diagnostics						
Adjusted R^2	0.41	0.35	0.50	0.48	0.75	0.74
Ljung-Box Q Test	3.23	4.63	4.84	4.63	1.91	5.59
Breusch-Pagan χ^2	0.06	2.39	1.70	7.97†	1.16	0.71
ARCH χ^2 (1)	0.03	1.66	0.45	0.49	0.09	0.80
Skewness/Kurtosis χ^2	1.14	0.53	0.62	2.68	0.73	0.27

Note: Standard errors in parentheses. N = 39 for the UK and 31 for Poland. *p ≤ .05, **p ≤ .01. One-tailed tests. † significant heteroscedasticity.

to a military mission abroad on such a scale, and the public could be paying more attention to this novelty, seeing news of victims as more sensational than people in war-experienced Britain. Similarly, Poles' long-run hypersensitivity to the number of terrorism victims may be influenced by the fact that Poland has no experience of international

terrorism and going to Iraq was perceived by many as an invitation for Islamic extremists to launch attacks in the country that considers itself terrorism-free. According to polls conducted between June 2003 and October 2007, on average 75 percent of respondents deemed that due to its involvement in Iraq, Poland would become a target of such attacks. In October 2004, when 82 percent of Poles feared terrorist attacks, the British public seemed a little bit less concerned. "Only" 56 percent felt less safe as a result of the war.[40] Thriving terrorism in Iraq seemed likely to contribute to those fears and consequently increase the war opposition.

British war opposition

Model 1 implies that increases in cumulative British soldier deaths have a significant contemporaneous effect on the public, with a 1 percent increase in fatalities being followed by a 0.16 percent rise in war opposition ($\beta_2 = 15.94$). A positive lagged coefficient confirms that an increase in fatalities in current period will have an effect on opposition over subsequent periods too. A long-run multiplier of 10.74, shown in Table 2, informs us that the total short- and long-run effect of a 1 percent increase in fatalities gives a boost of 0.1 percent to war opposition. Although these values may seem small at first, they translate into substantial fatality sensitivity. For example, a change from 10 to 20 fatalities is associated with a 10 percent increase in war opposition.

Model 2 tests whether deaths from terrorist attacks could have an impact on the war opposition in the United Kingdom. The estimates give an affirmative answer to that question and show that increases in terrorism contribute to a rise in war opposition. Finally, model 3 considers both measures of violence simultaneously. It strongly confirms

Table 2 - Long-run multipliers for the log model

	United Kingdom	Poland
National fatalities	10.74** (2.02)	-
Terrorism	1.46** (0.43)	3.34** (0.95)

Note: Standard errors computed using Bewley (1983) transformation in parentheses.
*$p \leq .05$, **$p \leq .01$. One-tailed tests.

the significance of the short- and long-run impact of terrorist violence on the war-related opinion in the United Kingdom. The impact of British fatalities is reduced to a short-run effect that is significant only at a 10 percent confidence level.

Polish war opposition

Models 4 and 5 offer a sequential introduction of the two violence variables and their impact on the Polish war opposition. One cannot make an inference about the effects of fatalities among Polish soldiers, as the coefficients never reach significant levels. Nevertheless, it does not mean that the Polish opinion is insensitive to losses among its troops. The model might not pick up any effects because deaths among Polish soldiers are relatively few (23 over a five year period). The regressions return a positive effect on opposition caused by changes in the series depicting cumulative fatalities in terrorist incidents. The total effect given by the long-run multiplier in Table 2 suggests that 1 percent increase in terrorism leads to a boost in war opposition by approximately 0.03 percent. Model 6, which includes both terrorism and Polish soldier fatalities, confirms the influence of terrorism.

Effect of selected events

Table 1 also provides estimates of changes in war opposition induced by selected events. The end of the Iraq invasion in early May 2003 coincided with a significant reduction in opposition in Poland. The rapid defeat of the Iraqi regime was perceived as a major success and the country did not lose any of its troops during that phase, which seems to explain the 26 percent drop in the opposition numbers. Similarly, the capture of Saddam Hussein in December 2003, another success of the military operations, reduced the British opposition by approximately 5 percent, and had a less evident impact in Poland. All models in Table 1 confirm significance of the "Torture/March 11" variable, which encompasses effects of the terrorist attack in Madrid in March 2004 and the release of the Abu Ghraib torture pictures. The temporal proximity of those two events and frequency with which polls were being conducted prevent from distinguishing between their individual effects. The growth in opposition could be attributed to one or both of the following effects. First, the evidence of soldiers' misconduct may have increased the dislike of the war among those members of the public who believed that the war was about improv-

Table 3 - ECM estimates based on marginal fatalities

	United Kingdom		Poland		Australia
	1	2	3	4	5
Opposition$_{t-1}$	-0.59** (0.14)	-0.82** (0.16)	-0.86** (0.18)	-1.12** (0.16)	-0.96* (0.29)
Δ Mrg National fatalities$_t$	-0.03 (0.16)		-0.41 (0.77)		
Mrg National fatalities$_{t-1}$	-0.10 (0.09)		-0.39 (0.48)		
Δ Mrg Terrorism$_t$		0.004* (0.002)		-0.002 (0.004)	0.01 (0.01)
Mrg Terrorism$_{t-1}$		0.003* (0.001)		0.005** (0.001)	0.007** (0.01)
End of invasion	3.60 (1.96)	4.07* (1.57)	-11.84 (6.41)	-16.46** (5.39)	
Capture of Saddam	-3.35 (2.48)	-2.11 (1.97)	1.20 (3.84)	0.20 (3.11)	
Torture / March 11	8.80** (2.62)	8.15** (2.34)	13.69** (4.21)	11.22** (3.41)	
Constant	23.00** (5.89)	29.15** (5.94)	60.87** (14.07)	79.75** (12.65)	43.56* (13.88)
Model diagnostics					
Adjusted R^2	0.27	0.39	0.41	0.60	0.80
Ljung-Box Q Test	3.21	2.68	2.32	3.91	2.99
Breusch-Pagan χ^2	0.47	0.04	10.68†	4.96†	0.14
ARCH χ^2 (1)	1.56	0.76	0.93	0.27	0.01
Skewness/ Kurtosis χ^2	1.04	0.82	3.29	0.25	0.90

Note: Standard errors in parentheses. N = 39 for the UK, 31 for Poland and 10 for Australia. *p ≤ .05, **p ≤ .01. † denotes present heteroskedasticity

ing Iraqi lives and freeing them from brutal dictatorship. Second, the March 11 bombings, which were perceived to be a result of Spain's involvement in Iraq, may have increased the fears among the British and Polish public of being punished for the countries' war participation with similar attacks. Thus, one cannot rule out that the March 11

attack boosted opposition by increasing the number of those demanding withdrawal from Iraq.

Marginal fatalities

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Table 3 presents estimates based on marginal fatalities representing the number of deaths of a given type that occurred within 120 days prior to a poll date. Models 2, 4 and 5 bear out the sizeable impact of the intensity of terrorism in Iraq on British, Polish and Australian opinion. Nonetheless, the estimates fail to confirm any effects caused by soldier fatalities. This suggests that only cumulative fatalities matter, because the media typically reports deaths as totals since the beginning of the war.[41] Hence, the public may not be aware how many troops were killed within a 120-day window. Similarly, respondents are unlikely to know precisely how many people died in terrorist incidents, but frequent and severe attacks are likely to influence wartime opinion through regular and nearly everyday appearance in news reports. Over the analyzed polling period, Iraq was a stage to an average of six terrorist incidents a day, which claimed 15 lives. They were bound to make a more frequent news appearance than deaths of soldiers, which happened at an average rate of one in 10 and 75 days for the British and Polish forces, respectively. In addition, since MIPT records are based on open sources, such as international news services, the database should somewhat reflect the media content reaching the public. Thus, the intensity of terrorism could be a signal of war progress, which dominates other cost measures when soldier fatalities are relatively rare.

The analysis of the Australian war opposition is hindered by the small number of data points – the most frequent and consistent poll was conducted only ten times.[42] This data limitation, coupled with the lack of combat deaths among the Australian troops, restricts the scope of investigation as well as its reliability. Nonetheless, the estimation coefficients shown in model 5 of Table 3 indicate a positive relationship between the Australian war opposition and terrorism.[43] These estimates add to the evidence of a significant long-run impact of terrorism intensity on opinion in the coalition countries.

Discussion

The above results offer a number of implications. First, in the absence of frequent soldier fatalities, which constitute the most obvious cost of armed conflict to a nation, the public is likely to respond to perceived

success of a mission measured by the ability or inability to bring peace and stability to a troubled nation. Since the Iraq war was framed as a part of the war on terror, swelling numbers of terrorist incidents and fatalities may serve as an indicator that the coalition efforts are failing. In addition, some members of the public may have been convinced that attacks are a direct result of the MNF presence in Iraq and therefore their support or ambivalence to the war was turned into opposition. Furthermore, mounting terrorist casualties may be interpreted as a signal that the cost of achieving war objectives is too high in terms of Iraqi lives. All this leads to a conclusion that the public in coalition countries is sensitive not only to fatalities of their own troops but also to the deaths of Iraqis.

Second, the public seems to be forming opinion in a consistent and rational way, which requires a cost-benefit analysis of the likely war outcome.[44] Although the public might have too little information to make complex cost-benefit calculations, it is possible that such an analysis is not based on precise knowledge of costs and combat situation, but rather on public's perception of these. Relatively low losses associated with the invasion and its high perceived success caused the opposition to deteriorate. This drop may have been helped by people's desire to be seen as supporting "our troops," and favorable media accounts. This could have been helped by the fact that nearly two out of three news reports showed coalition troops being welcomed by Iraqi people.[45] At the same time they avoided showing graphic images of death and destruction, helping the public to overlook the costs. The gap between perceived expected costs and benefits was further tipped in favor of the latter by politicians' attempts to portray the war as a move to preempt future aggression and terrorist attacks against the West. Nonetheless, perceived benefits were soon readjusted in response to the evaporation of the main reason for the war, WMD. Consequently, the campaign became more of a humanitarian venture and less of an endeavour to defend coalition countries' interests. When the costs started mounting and the vision of success became diluted by escalating insurgency, public opposition started rising. This tendency may have been reinforced by episodes of soldier misconduct, for instance in Abu Ghraib, which on one hand contributed to the cost side of the equation by compromising the Western values and increasing the risk of retaliatory attacks, and on the other may have made the public question the gains of freedom and democracy that Iraqis

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were expected to enjoy. Overall, the benefit side has been depreciating throughout the entire military campaign because the citizenry of the supporting states have observed a growing divergence between the war and their national interests. Hence, sluggish progress and swelling casualties may have led the public to the conclusion that the "lesser extent" of democracy in Iraq would have been an acceptable price for avoiding additional bloodshed.

Third, the citizenry in the coalition countries could feel less limited in joining war opposition than their American counterparts because of a wider range of alternatives. A withdrawal of a coalition member would not necessarily mean that the war was lost or that Iraq would immerse in even greater violence. Most likely, the United States would keep the situation under control. If not, a failure could still be largely blamed on the United States. A penalty for the "defector" would be limited mostly to strained relations with America and uncertainty of future defense alliances, which at the time may have been difficult to assess, and consequently seem as a low price to pay for bringing troops home. A withdrawal of the coalition leader would be associated with very different and much graver consequences, including the destabilization of Iraq and a loss of the superpower's credibility. Additionally, America's premature exit from Iraq would energize Islamist militants, who would see it as a victory. This highlights the distinction between choices facing the public in the United States and in other MNF countries.

Finally, the results appear to support the "Iraq syndrome"[46] whereby controversies surrounding the campaign and its high death toll have made the public more suspicious and less supportive of similar ventures. This was reflected in rapidly escalating war opposition across the MNF countries. The main contributor to the public mistrust was the failure to find WMD. However, scandals of soldier misconduct, such as Abu Ghraib, also must have played a role. The three coalition countries had their share of damaging allegations as well. Public trust in Britain was dented by accusations against Prime Minister Tony Blair of deliberately misleading the public on the evidence of Iraq's possession of WMD. The Australian public was outraged with the news that the reason for which the country joined the war was to protect its lucrative wheat trade. The Polish government was trapped in allegations of housing secret CIA prisons, where suspected terrorists had been tortured. Thus, the war and associated events have been likely to make the

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public question not only whether they can trust the United States, but also whether they can believe their own governments. Consequently, this will make convincing the citizenry to deploy troops abroad more difficult and hinder involvement in future military interventions. This may have been already observed in the attitudes towards the conflicts in Libya and Syria.

Summary

This study uses opinion polls from the United Kingdom, Poland and Australia to analyze fatality sensitivity of war-related public opinion in coalition countries, i.e. those that participate in military efforts but are not a leading force. The analysis based on the error correction model does not provide conclusive evidence on sensitivity to soldier deaths, which can be confirmed to some extent only for the British series. However, there is evidence that the public in the three coalition countries is sensitive to deaths in terrorist attacks in Iraq, which highlights the urgency of devising war strategies that tackle this form of violence in a more efficient way. Intensity of terrorism may be considered as a measure of success of the war efforts as well as a contributor to the war costs. Therefore, public responsiveness here implies that the opinion is formed through a cost-benefit analysis. The expected benefits were never high as the war participation was a policy choice, and not a necessity to defend homelands. The distant enemy that did not appear blatantly dangerous meant that the public placed smaller value on the stakes in Iraq. This may have translated into higher sensitivity to human losses evoked by the unexpectedly long and costly conflict. The very different nature of political and military involvement of the coalition countries was linked to their responsibility and risks being lesser than those of the coalition leader. Thus, their pullout from the combat mission would have been unlikely to impair the overall war outcome and as such gave those countries more flexibility in forming their opinions and exit strategies. A lower cost of a potential withdrawal could have made it easier to join war opposition.

The study confirms the validity of using the logarithm of cumulative fatalities as an explanatory variable in wartime opinion models. This is because the opposition exhibited an upward tendency, which is captured rather well by the monotonic nature of cumulative fatalities. The reversal of the increase in opposition was almost impossible because

the reasons for the intervention had been proven nonexistent and the coalition soon became implicated in numerous errors and scandals.

The error correction specification shows that the public does not base their opinion only on the most recent changes in the fatality series, but is likely to take into account developments in earlier periods too. The possibility that the public employs a long-term perspective when forming opinion has implications for policymakers. First, together with the cost-benefit analysis it confirms the public's rational approach to the war. Second, governments should avoid taking offhand and populist decisions under pressure of a moment and rather wait for the opposition to re-equilibrate. Third, they should make an effort to keep a number of war-related lapses and backslidings at minimum because, as the example of Abu Ghraib shows, they are costly in terms of support ratings. However, once an oversight happens, policymakers should try to convince the public that it was a one-off accident, for example through an appropriate investigation into causes, improved checks, guidelines, etc. A failure to do so is likely to deepen the damage in the war support because the adverse effect would die out more slowly than if the public was convinced that a future risk of such events was small. Fourth, long public memory may have led to the development of the Iraq syndrome, which is likely to hinder future military interventions, as public will be more suspicious of evidence and arguments presented by policymakers in support for committing a country to war.

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Notes
1   "Iraq Body Count," accessed June 10, 2016, http://www.iraqbodycount.net/.
2   "iCasualties.org," Iraq Coalition Casualty Count, accessed June 3, 2016, http://icasualties.org/.
3   See "USF-I Press Briefing on 14 June 2010," Stephen Lanza, American Forces Network Iraq, accessed on August 5, 2016, http://www.dvidshub.net/video/87896/maj-gen-lanza-brig-gen-cox-and-brig-gen-perna-press-confrences-part.
4   "Iraq: Foreign Contributions to Stabilization and Reconstruction," Christopher M. Blanchard and Catherine Marie Dale, Congressional Research Service. RL32105, accessed on September 3, 2016, http://fpc.state.gov/documents/organization/99533.pdf.
5   Examples of such studies include John E. Mueller, "Trends in Popular

Support for the Wars in Korea and Vietnam," *The American Political Science Review* 65(1971): 358-375; Scott Sigmund Gartner and Gary M. Segura, "War, Casualties, and Public Opinion," *The Journal of Conflict Resolution* 42(1998): 278-300; Christopher Gelpi, Peter Feaver and Jason Reifler, "Success Matters: Casualty Sensitivity and the War in Iraq," *International Security* 30(2006): 7-46.

6 "Iraq: Foreign Contributions to Stabilization and Reconstruction."

7 "Terrorism Knowledge Base," Memorial Institute for the Prevention of Terrorism, ceased its operations on March 31, 2008, accessed on March 1, 2008. The author holds an offline version of the database.

8 See Mueller, "Trends in Popular Support for the Wars in Korea and Vietnam;" Gartner and Segura, "War, Casualties, and Public Opinion;" Douglas L. Kriner and Francis X. Shen, "Reassessing American Casualty Sensitivity the Mediating Influence of Inequality," *Journal of Conflict Resolution* 58(2014): 1174-1201.

9 See "Iraq: Foreign Contributions to Stabilization and Reconstruction," and "iCasualties.org."

10 Peter Lalor, "Rudd Pulls Rank on Troops Talk," *The Australian*, 2007.

11 Mueller, "Trends in Popular Support for the Wars in Korea and Vietnam."

12 Gartner and Segura, "War, Casualties, and Public Opinion."

13 Bruce W. Jentleson and Rebecca L. Britton, "Still Pretty Prudent: Post-Cold War American Public Opinion on the Use of Military Force," *The Journal of Conflict Resolution* 42(1998): 395-417.

14 Adam J. Berinsky, "Assuming the Costs of War: Events, Elites, and American Public Support for Military Conflict," *Journal of Politics* 69(2007): 975-997.

15 Louis Klarevas, "The 'Essential Domino' of Military Operations: American Public Opinion and the Use of Force," *International Studies Perspectives* 3(2002): 417-437.

16 Several explanations of lower casualty sensitivity in recent years have been suggested. For example, it was attributed to the decreasing birth rate, see Edward N. Luttwak, "Toward Post-Heroic Warfare," *Foreign Affairs* 74(1995): 109. A hypothesis that casualty intolerance urged changes in military technology, which consequently strengthened casualty phobia by cultivating expectations of low human losses was proposed by Harvey M. Sapolsky and Jeremy Shapiro, "Casualties, Technology, and America's Future Wars," Parameters 26(1996): 119-127. Another argument made was that vivid pictures and time proximity of news reports make deaths more shocking, and therefore increase the degree of public casualty sensitivity, see Steven Livingston, "Clarifying the CNN Effect: An examination of Media Effects According to Type of Military Intervention," Joan Shorenstein Center on Press, Politics, and Public Policy, John F. Kennedy School of Government, *Harvard University Research Paper* R-18(1997). For Iraq-specific analysis see John E. Mueller, "The Iraq Syndrome," Foreign Affairs 84(2005): 44-54.

17 Gelpi, Feaver and Reifler, "Success Matters: Casualty Sensitivity and the War in Iraq."

18 For more detailed discussion, see Louis Klarevas, Christopher Gelpi and Jason Reifler, "Casualties, Polls, and the Iraq War," *International Security* 31(2006): 186-198.

19 Christopher Gelpi, Peter Feaver and Jason Reifler, *Paying the Human Costs of War: American Public Opinion and Casualties in Military Conflicts* (Princeton, NJ: Princeton University Press, 2009).

20 The major contributors in this area include Helmut Norpoth, "Guns and Butter and Government Popularity in Britain," *The American Political Science Review* 81(1987): 949-959; David Sanders, Hugh Ward, David Marsh and Tony Fletcher, "Government Popularity and the Falklands War: A Reassessment," *British Journal of Political Science* 17(1987): 281-313; Helmut Norpoth, "The Popularity of the Thatcher Government: A Matter of War and Economy," in *Economics and Politics: The Calculus of Support*, ed. Helmut Norpoth et al. (Ann Arbor, MI: University of Michigan Press, 1991), 141-160; David Sanders, Hugh Ward, David Marsh and Tony Fletcher, "Macroeconomics, the Falklands War, and the Popularity of the Thatcher Government: A Contrary View," in Norpoth et al. *Economics and Politics*, 161-182; Harold D. Clarke, William Mishler and Paul Whiteley, "Recapturing the Falklands: Models of Conservative Popularity, 1979-83," *British Journal of Political Science* 20(1990): 63-81. The presence of rally effects in the United Kingdom in the post-World War II conflicts were studied by Brian Lai and Dan Reiter, "Rally 'Round the Union Jack? Public Opinion and the Use of Force in the United Kingdom, 1948–2001," *International Studies Quarterly* 49(2005): 255-272.

21 Ben Clements, "Public Opinion and Military Intervention: Afghanistan, Iraq and Libya," *The Political Quarterly* 84(2013): 119-131.

22 Mueller, "Trends in Popular Support for the Wars in Korea and Vietnam;" Gartner and Segura, "War, Casualties, and Public Opinion."

23 The results of public opinion surveys are available from the following websites: "Iraq War Right or Wrong? Tracker," YouGov, accessed on May 10, 2016, http://iis.yougov.co.uk/extranets/ygarchives/content/pdf/trackerIraqTrends_060403.pdf;

"Public Attitudes Towards Polish Troops Presence in Iraq," Repeated Survey: March 2003 - October 2007. Reports K_126_04 and K_162_07, Centrum Badania Opinii Społecznej (CBOS); accessed on May, 11, 2016, http://badanie.cbos.pl/results.m to the Iraq War," *International Studies Quarterly* 55(2011): 771-785.

32 As suggested by Gartner and Segura, "War, Casualties, and Public Opinion."

33 This appears true for studies by Mueller, "Trends in Popular Support for the Wars in Korea and Vietnam;" Gartner and Segura, "War, Casualties, and Public Opinion;" Jentleson and Britton, "Still Pretty Prudent: Post-Cold War American Public Opinion on the Use of Military Force;" and Norpoth, "Guns and Butter and Government Popularity in Britain."

34 See Robert F. Engle and C. W. J. Granger, "Co-Integration and Error Correction: Representation, Estimation, and Testing," *Econometrica* 55(1987): 251-276.

35 William H. Greene, *Econometric Analysis* (Upper Saddle River, NJ: Prentice Hall, 2003).

36 For examples see Harold D. Clarke, Karl Ho and Marianne C. Stewart, "Major's Lesser (Not Minor) Effects: Prime Ministerial Approval and Governing Party Support in Britain Since 1979," *Electoral Studies* 19(2000): 255-273; Suzanna De Boef and Paul M. Kellstedt, "The Political (and Economic) Origins of Consumer Confidence," *American Journal of Political Science* 48(2004): 633-649; Luke Keele, "Social Capital and the Dynamics of Trust in Government," *American Journal of Political Science* 51(2007): 241-254; Will Jennings and Peter John, "The Dynamics of Political Attention: Public Opinion and the Queen's Speech in the United Kingdom," *American Journal of Political Science* 53(2009): 838-854.

37 The potential effects of the Iraqi elections in 2005 and the London bombings of 7 July 2005 are also considered. Nevertheless, estimates of these effects are insignificant and not shown.

38 The estimation procedure followed in this paper has been outlined in Engle and Granger, "Co-Integration and Error Correction" and Suzanna De Boef and Jim Granato, "Testing for Cointegrating Relationships with Near-Integrated Data," *Political Analysis* 8(1999): 99-117.

39 In addition, the hypothesis proposed by Gartner and Segura that marginal casualties explain changes in opposition better during periods of conflict intensification, but cumulative casualties have a greater explanatory power during conflict de-escalation is considered. However, arranging explanatory variables in the way outlined by the two authors gives a model with discouraging diagnostics, and significant coefficients only for deaths in terrorist attacks.

40 According to the opinion polls "Public Attitudes Towards Polish Troops Presence in Iraq. Repeated Survey: March 2003 - October 2007. Reports K_126_04 and K_162_07," Centrum Badania Opinii Społecznej (CBOS) in Poland and YouGov Survey Results, "Iraq and British and US Politics," YouGov Ltd (2004) in the UK.

41 This finding is in line with Mueller, "The Iraq Syndrome."

42 Studies of wartime opinion are often plagued by small sample sizes. For instance, Mueller, "Trends in Popular Support for the Wars in Korea and Vietnam," and Gartner and Segura, "War, Casualties, and Public Opinion," base their consideration on 25 and 26 observations, while a sample as small as three is used in Eric V. Larson, *Casualties and Consensus: The Historical Role of Casualties in Domestic Support for U.S. Military Operations* (Santa Monica, CA: RAND, 1996).

43 The log specification also detects a long-run effect of terrorism on war opposition in Australia. However, such a model suffers from residual non-normality. The event variables are not included in model 5 because their meaning would be difficult to interpret accurately with such low frequency of polling. Furthermore, including more than one intervention variable with so few observations exacerbates the risk of multicolinearity.

44 This notion has been affirmed in many studies of American opinion, for examples see Gartner and Segura, "War, Casualties, and Public Opinion," and Gelpi, Feaver and Reifler, "Success Matters: Casualty Sensitivity and the War in Iraq," but rejected by Berinsky, "Assuming the Costs of War: Events, Elites, and American Public Support for Military Conflict."

45 See Justin Lewis, "Television, Public Opinion and the War in Iraq: The Case of Britain," *International Journal of Public Opinion Research* 16(2004): 295-310.

46 As described by Mueller, "The Iraq Syndrome."