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ABSTRACT

War Casualties and US Presidential Popularity:
A Comparison of the Korean, Vietnam and Iraq War

by Benny Geys

Conventional wisdom holds that war casualties depress incumbent popularity. We argue that the strength and even the direction of these effects is inherently context-dependent because the perception of casualties varies over time and space, affected by historical developments. While intuitive, this proposition has as yet not been directly addressed due to a lack of explicitly comparative analyses. Investigating US presidential popularity over the period 1948-2006, the present paper illustrates that intensity and occurrence of casualty effects on presidential popularity varies significantly across the three considered military conflicts (i.e. Korea, Vietnam, Iraq). Moreover, these differences can be credibly linked to historical developments.

Keywords: Presidential approval, popularity function, war, casualties, historical institutionalism

ZUSAMMENFASSUNG

Kriegsopfer und die Popularität der US-Präsidenten:
Ein Vergleich der Kriegskonflikte in Korea, Vietnam und im Irak

Nach gängiger Meinung verringern Kriegsopfer die Beliebtheit des Amtsinhabers. Wir behaupten, dass die Stärke und sogar die Richtung dieser Effekte an sich kontextabhängig ist, denn Kriegsschäden und -opfer werden über die Zeit und den Raum hinweg unterschiedlich wahrgenommen und ist beeinflusst durch geschichtliche Entwicklungen. Obwohl diese Aussage intuitiv ist, wurde sie bisher noch nicht direkt thematisiert, da es an explizit vergleichenden Analysen mangelte. Der vorliegende Artikel untersucht die Popularität der US-Präsidenten über den Zeitraum 1948 bis 2006 und zeigt, dass die Intensität und Häufigkeit der Auswirkungen von Opfer fordernden Zwischenfällen auf die Beliebtheit des Präsidenten signifikant zwischen den drei betrachteten militärischen Konflikten (d.h. Korea, Vietnam, Irak) variiert. Zudem können solche Unterschiede glaubwürdig mit geschichtlichen Entwicklungen in Verbindung gebracht werden.

1. Introduction

While scholars generally agree that "casualties ultimately drag down [political leaders'] job approval" (Eichenberg *et al*., 2006, 802; see also Mueller, 1973; Kernell, 1978; Schwartz, 1994; Gronke and Newman, 2003; Eichenberg *et al*., 2006; Kriner, 2006; Karol and Miguel, 2007; Gartner, 2008), public opinion is unlikely to respond in similar fashion to each war, nor is it likely to follow the same pattern during every conflict. The reason is that timing and sequence of events are of crucial importance in political and social processes (e.g., Thelen, 1999; Mahoney, 2000; Pierson, 2000a). Inasmuch as each war (or conflict) has its own particularities, develops within a given political and societal setting and against its historical background, the effects casualties have on public opinion are likely to be – much like preference formation more generally – "emergent from the situation (endogenous) and context-specific" (Scott, 2001, 36).

This argument – which builds on insights from historical institutionalism (Thelen and Steinmo, 1992; Thelen, 2004) – can be seen as leading up to a very basic proposition: namely, context matters. Yet, despite its intuitive appeal, this supposition has received surprisingly little attention in the casualties-and-popularity literature. This is not to say that scholars assume that the effect of casualties should be the same across all conflicts.[1] However, most scholars concentrate on one particular conflict. While this allows a detailed analysis of that conflict's specific setting, comparisons across conflicts and study of potential differences across conflicts are then by definition impossible.

The present paper addresses the latter question by explicitly diverging from the customary 'one study, one war' approach. Specifically, we compare the effect of casualties on US presidential popularity in the three main US-fought wars since World War II (i.e. Korea, Vietnam and Iraq).[2] As such, we extend previous scholarship in three main ways. First, to the best of our knowledge, no study thus far compared the casualty-popularity relation for more than two wars within the same analysis. Second, we account simultaneously for the influence of casualties, the 'rally-around-the-flag' effect *and* (potential) changes in presidency during the conflict. While each of these issues has attracted extensive attention on its own, a combined analysis of all three elements has thus far been lacking. Third, we assess whether the 'rally-around-the-flag' effect reduces casualty sensitivity at the onset of a conflict (rather than directly affecting popularity).

Our results allow three main conclusions. First, while casualties are bad for popularity in all three conflicts, this held most strongly during the Vietnam War. Also, the effect of casualties in Korea and Iraq is statistically indistinguishable (even though human losses in Korea were

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[1] Indeed, there has been some research concerning the potential determinants of casualty sensitivity. In fact, it has been associated with demographic developments (Luttwak, 1995), technological change (Sapolsky and Shapiro, 1996), perceptions of success (Gelpi *et al*., 2006) and framing of casualty numbers (Boettcher and Cobb, 2006). Likewise, public support for the use of military force has been related to, among other things, the aim of the conflict (Jentleson, 1992; Jentleson and Britton, 1998), perceptions of success (Eichenberg, 2005; Larson, 1995), domestic political and media support (Baker and Oneal, 2001; Colaresi, 2007; Berinsky, 2007), outside support (Chapman and Reiter, 2008) and elite consensus/dissensus (Larson, 1995). For recent review, see Aldrich *et al*. (2006, 481-483).

[2] These are studied most extensively in the literature (allowing some benchmarking of our findings) and are arguably also the most 'important' wars in recent US history (see Nordhaus, 2002). We do not explicitly analyse US involvement in the first Persian Gulf War as its briefness does not allow us to adequately account for it in the present analysis. We also disregard US involvement in peacekeeping missions in, say, Somalia, Kosovo and Lebanon as these are often regarded differently by the public (Larson, 1996; Burk, 1999; Gronke and Newman, 2003).

much higher). The latter points to higher casualty-aversion in the current conflict, which may, for example, derive from a post-Vietnam trauma or technological advances in warfare (which might make human sacrifice less acceptable). Second, a strong rally reducing casualty sensitivity early in the conflict appears to only exist for the Korean War, but not for Vietnam or Iraq. For Iraq, the effect all but disappears when accounting for the president's (pre-emptive) 'war is over' message. For Vietnam, the reason is likely to be that there was no clear beginning of the conflict (more details below). Finally, the change in presidency during the Korean and Vietnam Wars generated different effects. Eisenhower was not affected by casualties in the ongoing conflict after taking over the presidency, while Nixon was. This suggests that insulation from a 'casualty-penalty' only occurs when the conflict is resolved quickly after power is transferred. Overall, differences in the precise effects of casualties on public opinion emerge from the situation (cf. Scott, 2001). Taking context, timing and sequence of events into account thus appears essential for accurate inferencing across conflicts (Pierson, 2000a, b).

The next section briefly reviews the preceding literature and discusses the (potential) importance of contextual and comparative research. Then, in section 3, we present an analysis of US presidential popularity ratings over the period 1948-2006 to illustrate how comparisons across conflicts (and use of the particular circumstances and characteristics of each war) can add to our knowledge on the casualty-popularity relation. Section 4 concludes and discusses our main findings.

2. Literature and hypothesis

2.1. Three 'stylised facts'

Extensive empirical research on the relation between war casualties and incumbent popularity has led to three 'stylised facts'. First, the human cost of military conflicts – in terms of casualties suffered – often significantly undermines incumbent popularity. This holds for the Korean and Vietnam Wars (e.g., Mueller, 1973; Kernell, 1978; Sigelman and Conover, 1981; Ostrom and Simon, 1985; Schwartz, 1994; Gartner and Segura, 1998, 2000) as well as World War II (e.g., Baum and Kernell, 2001; Kriner, 2006) and the current Iraq campaign (e.g., Eichenberg *et al*., 2006; Voeten and Brewer, 2006; Kriner, 2006; Karol and Miguel, 2007; Gartner, 2008). The first US-fought Persian Gulf War appears to be an exception, though this has been argued to derive from its shortness (e.g., Mueller, 1994).

Second, the onset of a war is often characterised by a 'rally around the flag'-effect. This occurs when the population – following cues from political elites or the media – gathers behind its leader in times of significant turmoil (Mueller, 1973; Sigelman and Conover, 1981; Brody, 1991; Colaresi, 2007). The argument builds on the well-known principle that internal cohesion is often increased when there is a threat from outside (e.g., Abrams *et al*., 2005; Münster, 2007). While such surges in public support are not certain to materialize (cf. Lai and Reiter, 2005, and references therein), they have been documented for the Persian Gulf War (e.g., Krosnick and Brannon, 1993; Lai and Reiter, 2005), the Falklands War (Lai and Reiter, 2005) and the current Iraq War (e.g., Eichenberg *et al*., 2006).[3]

Third, the effect of war casualties is especially strong for political leaders who started a war or conflict, compared to those who merely inherit it (Ostrom and Simon, 1985; Marra *et al*., 1990; Gartner and Segura, 1998). The reason is that those starting the conflict are most clearly

[3] Importantly, however, these studies illustrate that there is an increase in leaders' popularity at the onset of conflict, *not* that this reduces the sensitivity to casualties at this time (which will be regarded below).

'responsible' and accountable for its consequences – and casualties. Those who inherit an ongoing war are often elected on the promise either to stop the war, or to handle it differently. Moreover, they cannot be held accountable for the country's initial involvement in the war and the state of the conflict.

2.2. Theoretical background

Although these three features surface during various conflicts and in different countries, scholars have thus far neglected comparative analyses to assess to what extent, how and why, these effects differ over time and space. Hence, while casual observation of previous 'single-war' studies confirms significant variation in these effects over time, little is as yet known about what might explain such differences.

To address the latter question, we rely on insights from neo-institutionalist theories and, more specifically, historical institutionalism. Institutions are in this theoretical approach defined as both formal and informal "organizational arrangements infused with values beyond their instrumental utility" (Olsen, 2005, 4). Clearly, the perception of human losses in military conflicts can be viewed as one such institution, as part of the set of "informal rules (…) that structure conduct" (Thelen and Steinmo, 1992, 2; see also Swidler, 1986; Scott, 2001). That is, what it means to observe a given casualty count – and therefore how it translates in public opinion and retribution of political leaders – depends on how such an event is regarded (or constructed) in a society at a given point in time. Individuals' actions – in this case, withdrawing support from political leaders – "cannot be understood except as part of [this] larger institutional framework" (Krasner, 1998, 72).

Crucially, institutions do not exist in isolation, but "emerge from and are embedded in concrete temporal processes" (Thelen, 1999, 369). Hence, social norms and values, regarded as informal institutions (cf. supra), are not always and everywhere the same, nor are they necessarily understood in similar ways in different places. Rather, they are continuously affected by political and societal events (Thelen, 2004). As such, historical developments decisively shape how casualties are regarded over time and how strongly they will shape public opinion towards its leaders (at each point in time).

Applied to the present setting, this line of reasoning implies that the perception of human losses in military conflicts – and the resulting casualty sensitivity in the population – changes over time. This idea is (implicitly) reflected in, for example, the belief among many observers that the sheer number of casualties the US suffered in the Vietnam War induced a trauma in the minds of the US population, which led them to become extremely sensitive to military interventions (and casualties therein) (e.g., Sapolsky and Shapiro, 1996; Feaver and Gelpi, 2004; Boettcher and Cobb, 2006). It also surfaces in the proposition that technological advances in warfare may have led to increased casualty sensitivity among the US population by generating an unwarranted belief in the superfluous nature of human losses in modern military engagements (e.g., Sapolsky and Shapiro, 1996).

In the empirical analysis below, we address the resulting hypothesis that the size (and, possibly, direction) of casualty effects on political leaders' popularity depends on the context and characteristics of the conflict. We thereby mainly assess to what extent this relation differs over time (and conflicts) – such that the analysis presented here is mostly of a descriptive nature. While we also suggest potential explanations for the differences we observe (on a rather ad hoc basis, much like Lai and Reiter, 2005), determining the exact nature and applicability of these "scope conditions" (cf. Lakatos, 1981; Elster, 1989) goes

beyond the aim of the present analysis. Nonetheless, we believe that the descriptive, comparative analysis presented here provides a useful and necessary first step to investigate the scope conditions under which the three mentioned 'stylised facts' emerge.

3. Empirical Analysis

3.1. Empirical specification

To assess how context shapes the casualty-popularity relationship, we present a comparative analysis of US presidential approval ratings across three conflicts (i.e. Korea, Vietnam, Iraq) over the 1948-2006 period. Hence, rather than test for the mere presence/absence of casualty effects or variation in casualty sensitivity across individuals in a given conflict – as in most previous work – we address whether, and to what extent, these effects differ across conflicts.[4] This approach is comparable to Lai and Reiter's (2005) comparative analysis of the rally-around-the-flag effect in different conflicts involving the UK. Specifically, our basic specification is:[5]

$$P_t = a + b_1 P_{t-1} + b_2 X_t + b_3 \text{Casualties}_t + b_4 \text{Casualties}_t * \text{WarStart}_t + b_5 \text{Casualties}_t * \text{NewAdmin}_t + e_t$$

The dependent variable measures US presidential popularity (P_t) using the share of the population expressing approval on the standard Gallup approval question: "Do you approve or disapprove of the way President [name] has handled his job as a president?". We take an average value when more polls are available for a given quarter and linearly interpolate for quarters lacking a poll by Gallup. The data range from a low of 23% to a high just over 87% with a mean value of 54% (summary statistics for all variables are presented in appendix A).

As explanatory variables, the model first of all includes one lag of the dependent variable (P_{t-1}) to capture slow intertemporal adjustment in popularity ratings (e.g., Kernell, 1978; Geys and Vermeir, 2008a, b). Then, represented above as a vector of control variables (X_t), we include a number of (standard) economic variables: namely, real growth rate of GDP, inflation rate and unemployment rate (all in the current quarter). As political controls, we include administration dummies, a 'honeymoon' variable (cf. Smyth and Dua, 1989; Fox and Phillips, 2003)[6] and an indicator variable capturing 'pre-election rebounds' (see, e.g., Goodhardt and Bhansali, 1970; Cusack, 1999; Schmitt and Wüst, 2006).[7] Lower accountability of divided governments (cf. Powell and Whitten, 1993; Nicholson *et al*., 2002) is assessed by including a dummy variable equal to 1 when the president's party does not control the House or Senate, 0 otherwise. Finally, we control for events such as the Iran-

[4] Similarly, one could ask whether the effect of war casualties shows similar patterns for a given war across the various countries involved (e.g., US versus UK in the current Iraq conflict). Unfortunately, at present, we lack the data to explore this issue.

[5] We rely on quarterly data to estimate the model. Clearly, it would be preferable to have a higher frequency of observations to more accurately assess the temporal aspects of the model. However, due to constraints imposed by the economic control variables, this is not possible.

[6] This accounts for the ebb and flow of presidential terms. It is 3 in the second quarter of each administration, 2 in the third quarter, 1 in the fourth quarter and 0 in all other quarters. Note that the first quarter of each administration is dropped from the sample since there is no lagged dependent variable for this observation.

[7] This variable is 1 only in the quarter of the election. Using a pre-election variable equal to 1 in quarters 3 and 4 of the election year – or in the entire election year – does not affect our main results, but gives weaker results for the pre-election variable (suggesting rebound mostly occurs in the election quarter).

hostage affair[8], the Persian Gulf War (dummy equal to 1 in 1991:1), the 9/11 attacks (dummy equal to 1 in 2001:4)[9], the Watergate scandal (dummy equal to 1 in the quarters 1973:2-1974:2), the Iran-Contra affair (dummy equal to 1 in the quarters 1986:4-1987:1) and President Clinton's Monica Lewinsky affair (dummy equal to 1 in 1998:1-1999:1).

Central to the analysis are three variables related to the political cost of war casualties. The first, 'Casualties', is a vector of three variables (i.e. one for each conflict) measuring the natural log of the number of casualties suffered by the US army in a given quarter in a given conflict. It has non-zero values between 1950:2 and 1954:4 for the Korean War, 1962:1 and 1975:4 for Vietnam and 2003:1 and 2006:3 (the most recent observation in our sample) for the Iraq war. Using separate casualty counts for each war allows us to assess whether casualties as such are equally detrimental to popularity in each conflict. Importantly, the natural logarithms not only permit interpreting the coefficients as semi-elasticities, but also make the regression coefficients comparable across the three wars.[10]

Building on the extensive 'rally-around-the-flag'-effect literature (e.g., Krosnick and Brannon, 1993; Eichenberg *et al*., 2006), one could argue that the early stages of a war may witness a lower casualty sensitivity compared to the rest of the conflict. One potential reason for ignoring or downplaying casualty counts at the onset of a conflict is that this reduces the psychologically uncomfortable dissonance between supporting the president and the human costs associated with the conflict (cf. the *cognitive dissonance*-literature within psychology; see Festinger, 1957; Harmon-Jones and Mills, 1999). To capture this, we interact the logged number of casualties in each war with an indicator variable ('WarStart') equal to one for the first two quarters of the war (0 otherwise): i.e. Korea, 1950:3-4; Vietnam, 1964:3-4; Iraq, 2003:1-2.[11] As this two-quarter period is admittedly arbitrary, we re-estimate the model defining the first and first three quarters of the war as 'early stage'. Introducing both the level of casualties and the interaction term empirically distinguishes between the effect of war casualties in the first two quarters of the war ($b_3 + b_4$) and their overall effect in the war (b_3). Once again, by estimating these effects for the three wars separately, we can asses to which extent the early stages of the three wars are 'different' (in terms of translating war casualties into incumbent's approval ratings).

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[8] This variable is 1/i (with i = 1,…,5) in quarters between 1979:4 and 1981:4, and 0 otherwise. Alternatively, one might model an exponential decline (i.e. e^{-t} with t = 0, 1,…,4 between 1979:4 and 1981:4) as suggested by Ostrom and Simon (1989) and Marra *et al*. (1990). This alternative specification does not affect our findings.

[9] Some scholars argue that the 9/11 attacks had a strong and slowly decaying effect on presidential approval (e.g., Gaines, 2002; Hetherington and Nelson, 2003). Yet, Eichenberg and Stoll (2006) estimate the duration of the event at 15 weeks using news coverage data from the New York Times. This substantiates our choice to include an indicator variable for one quarter only rather than model a (linearly or exponentially) declining impact. Note also that a more explicit modelling of the possibly declining impact of 9/11 introduces multicollinearity with the Iraq War casualty variable – inducing severe identification problems.

[10] We follow Gartner and Segura (1998; 2000) in using marginal (in our case quarterly) casualty counts rather than cumulative casualties (as in, e.g., Mueller, 1973; Ostrom and Simon, 1985). The reason is that the marginal measure acknowledges the importance of turning points and views temporally proximate human costs as crucial in the determination of public opinion (Gartner and Segura, 1998). Moreover, the cumulative measure is strongly correlated with time and thus confounds the pure effect of casualties with that of other time-dependent elements such as war weariness (Gartner and Segura, 1998, 2000). The marginal casualty measure does not suffer from this identification problem.

[11] None of these wars had an official declaration of war. Hence, for the Korean and Iraq War, we use the beginning of major US military activity as the official starting point (in July 1950 and March 2003

An 'inherited' rather than 'initiated' war has been argued to weaken casualties' effect on the incumbent president's popularity (cf. Ostrom and Simon, 1985; Marra *et al*., 1990; Gartner and Segura, 1998). This is picked up by interacting the casualty count for each war with a dummy variable ('NewAdmin') indicating a change in presidential administration (equal to 1 from 1953:1 to the end of the Korean War and from 1969:1 to the end of the Vietnam War). To the extent that the political price of war casualties is lower when a president inherits rather than starts a war, b_5 should be positive (whereby $b_3 + b_5$ indicates the effect of casualties on the new administration). Inasmuch as it differs across conflicts, b_5 should also be statistically different for the Vietnam and Korean War.

3.2. Results

As a first stage in the analysis, unit root tests were performed to assess the stationarity of our variables.[12] Their results (given in Table 1) indicate that all variables are stationary, with the exception of inflation. As first differences of this variable are stationary, we include it in first-differenced form in our model. The results from the estimations themselves are brought together in Table 2. The sole difference between the results in the three columns of Table 2 is the definition of the 'early stage' of the conflict. In Column (1), only the first quarter is defined as the 'start' of the war, whereas this is extended to the first two or three quarters in Columns (2) and (3) respectively.

Table 1 and 2 about here

Before discussing the main findings, it is clear that our control variables support previous findings. All three economic control variables – growth, unemployment and inflation – have the expected sign and are statistically significant at conventional levels (except for inflation). Regarding the political variables, we find clear evidence of president-specific effects, a 'honeymoon' effect as well as a pre-election rebound. Fragmentation of power (i.e. divided government) appears to insulate the president from (at best) part of the cost of ruling. Scandals such as Watergate and the Iran-Contra affair had a devastating impact on presidential popularity, while this is not the case for the Lewinsky affair (the latter is in line with Zaller, 1998). Both 9/11 and the Iran-hostage affair boosted approval ratings (although support for President Carter withered quickly due to various failed attempts to resolve the hostage situation). The quick and successful resolution of the Persian Gulf War in 1991 also greatly benefited the popularity of the incumbent US president.

Turning to the central casualty variables, it is clear that the effect of war casualties on US presidential approval ratings differs significantly across the three wars considered.

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respectively). For the Vietnam War, we use the declaration of Tonkin in August 1964 when the US Congress officially authorized military intervention (see also Oneal and Brian, 1995; Baker and Oneal, 2001).

[12] We perform augmented Dickey-Fuller tests. The number of included lagged first differences was decided by a sequential *general to specific* rule (Hall, 1994; Maddala and Kim, 2004) – taking the integer part of $[12 (T/100)^{1/4}]$ (with T representing the number of observations) as the starting point (see Schwert, 1989). Consequently, we use 14 lags as the point of departure (as T=223). Inclusion of a trend variable and constant term was based on statistical significance of these variables. The reason is that including too many such 'deterministic' variables reduces the power of the test while incorrectly excluding them biases it in favour of the unit-root null hypothesis (Guilkey and Schmidt, 1991; Elder and Kennedy, 2001).

- First, while casualties depress presidential popularity in all three wars, the overall effect (captured in b_3) is strongest for the Vietnam War, followed by the Korean War and the Iraq War. Moreover, the difference between the casualty effect in the Vietnam War and the other two conflicts is statistically significant at last at the 85% confidence level in all specifications ($F_{Vietnam,Korea}$ equals 2.71, 3.12 and 2.22 in columns (1), (2) and (3) respectively [$p<0.15$]; $F_{Vietnam,Iraq}$ is 5.44, 5.79 and 4.22 respectively [$p<0.05$]). The effect of casualties in Iraq and Korea is statistically indistinguishable ($F_{Korea,Iraq}$ is 0.41, 0.37 and 0.28 respectively [$p>0.50$]). Given the difference in the (absolute) number of casualties in both wars (roughly 36000 in Korea versus 3000 in Iraq [up to 2006:3, the last observation in our analysis]), this suggests that the smaller (absolute) casualty counts in Iraq lead to the same public retribution than the higher counts during the Korean War. Potential explanations can be sought in the trauma of the Vietnam War (cf. Eichenberg *et al*., 2006), or in technological advances in warfare (making US citizens less inclined to accept human losses among their troops; see also Sapolsky and Shapiro, 1996).
- Second, the onset of the war is not necessarily characterized by lower levels of casualty sensitivity. The interaction term between the number of casualties and the indicator variable for the onset of the war is positively signed – and statistically significant – only for the Korean and Iraq War. Yet, even in these cases, results should be carefully interpreted. For the Korean War, casualties have a negative effect even in the beginning of the conflict (i.e. $b_{3k}+b_{4k}$ is negative)[13], but this is insignificantly different from 0 in most specifications ($F=0.74$, 2.06 and 3.04 in columns (1), (2) and (3) respectively [$p=0.39$, 0.15 and 0.08]). Hence, the positive rally-effect manages to (near-completely) outweigh the negative casualties effect. For the Iraq War, the interaction term more than compensates the effect of casualties when defining the onset of the war as the first two and first three quarters, though this does not hold when regarding the first quarter only. This suggests that there was a rally-type effect, but that the good news in the second and third quarter of the war (i.e. the announcement of the successful conclusion of the conflict) had an important additional effect. In all cases, the casualty effect becomes insignificant ($F=0.36$, 1.46 and 0.07; $p=0.55$, 0.23 and 0.79 respectively for Columns (1), (2) and (3)). Finally, for the Vietnam War, the interaction effect is weakly negative, indicating that there was no counterbalancing effect in the early stages of that war. A possible explanation here is that US military strength and activity in Vietnam was building up *before* the US Congress gave official authorization via the declaration of Tonkin in August 1964 (though this official declaration clearly did not spur the population to 'rally' behind its leader).
- Finally, the change in presidency during the Korean and Vietnam wars appears to have differently affected how casualties translate into popularity. In the Korean War, the change in presidency fully eliminated the negative effect of war casualties (in all three estimations $b_{3k}+b_{5k} \approx 0.29$; $F_{1,\ 191}\approx 0.50$; $p>0.45$). While Eisenhower thus seemed fully insulated from such losses, this was hardly the case for Nixon. Casualties suffered in the late stages of the Vietnam conflict still (albeit weakly) impinged on his popularity (in all three estimations: $b_{3v}+b_{5v}\approx -0.75$; $F_{1,\ 191}\approx 1.80$; $p\approx 0.17$). Both findings indicate that inheriting a war insulates the incumbent from popular disapproval about military casualties, but only when the conflict is resolved shortly after. The Vietnam War lasted well after President Nixon came to power, such that he too became tainted by the human losses suffered in that conflict.

[13] Parameters b_3 and b_4 refer to the model described at the beginning of section 3.1. Still, for clarity, we now add a subscript k, v and i for 'Korea', 'Vietnam' and 'Iraq' respectively.

Overall, our analysis of US presidential popularity over the period 1948-2006 illustrates that intensity (and occurrence) of casualty effects on presidential popularity varies significantly across the three considered military conflicts (i.e. Korea, Vietnam, Iraq). Moreover, although not the prime concern of the present (largely descriptive) analysis, these differences can be credibly linked to historical developments.

4. Conclusion

War casualties have been shown to significantly affect incumbent popularity. The present paper's main contention is that the strength – and even occurrence – of such casualty effects is likely to depend on the economic, social or ideological *context* of the conflict. To illustrate this point, we provided a (largely descriptive) analysis of US president approval ratings over the period 1948-2006 (i.c. comparing the Korean, Vietnam and Iraq Wars). Specifically, we assessed whether wars involving the US tend to depress US presidential popularity depending on the number of casualties suffered and whether this effect is weaker in the early stages of the war or for presidents inheriting the war. Moreover, although not the main aim of the analysis, we also provide some intuitive – and of necessity preliminary – arguments that could help explain the observed differences, thereby paving the way for a more thorough assessment of the *scope conditions* under which they surface (cf. Lakatos, 1981; Elster, 1989).

Our results indicate that casualty effects are present in different ways in the each of the three wars analysed. In fact, although casualties always have a negative effect on popularity, its overall effect is strongest in Vietnam, followed by the Korean and Iraq War. War casualties at the onset of the war tend to be less politically costly in Korea, but not in Vietnam. The findings for the Iraq War induce some caution about the interpretation of this effect (as it might partly pick up 'good news' during the period defined as the onset of the war). Finally, the change in presidency during the Korean War mitigated the effect of casualties on approval ratings to a greater extent than the change in presidency during the Vietnam War. Indeed, Eisenhower did not appear to suffer in terms of popularity for war casualties in the later stages of the Korean conflict, but Nixon clearly did after he inherited the Vietnam War.

These results strongly support the view that the context, timing and sequence of events are crucially important in political and social processes (Pierson, 2000a, b). The effects of casualties on public opinion are in important (and intuitively comprehensible) ways linked to the context of the conflict. Nevertheless, further comparative research is required to get a tighter hold on which contextual influences matter, as well as how and why they influence casualty sensitivity across conflicts.

References

Abrams, D., M.A. Hogg and J.M. Marques, 2005. *The social psychology of inclusion and exclusion*. New York: Psychology Press.

Baker, W.D. and J.R. Oneal. 2001. Patriotism of opinion leadership: The nature and origins of the rally round the flag effect. *Journal of Conflict Resolution* 45 (5): 661-687.

Baum, M.A. and S. Kernell. 2001. Economic class and popular support for Franklin Roosevelt in war and peace. *Public Opinion Quarterly* 65: 198-229.

Berinsky, A.J. 2007. Assuming the costs of war: Events, elites and the American public support for military conflict. *Journal of Politics*, forthcoming.

Boettcher, W.A. and M.C. Cobb. 2006. Echoes of Vietnam? Casualty framing and public perceptions of success and failure in Iraq. *Journal of Conflict Resolution* 50 (6): 831-854.

Brody, R.A. 1991. *Assessing the president: The media, elite opinion and public support*. California: Stanford University Press.

Burk, J. 1999. Public support for peacekeeping in Lebanon and Somalia: Assessing the casualties hypothesis. *Political Science Quarterly* 114 (1): 53-78.

Chapman, T.L. and D. Reiter. 2008. The United Nations Security Council and the rally round the flag effect. *Journal of Conflict Resolution* 48 (6): 886-909.

Colaresi, M. 2007. The benefit of the doubt: Testing an informational theory of the rally effect. *Journal of Conflict Resolution* 61: 99-143.

Cusack, T.R. 1999. The shaping of popular satisfaction with government and regime performance in Germany. *British Journal of Political Science* 29: 641-672.

Eichenberg, R.C. 2005. Victory has many friends: US public opinion and the use of military force 1981-2005. *International Security* 30 (1): 140-177.

Eichenberg, R.C., R.J. Stoll, and M. Lebo. 2006. War president: The approval ratings of George W. Bush. *Journal of Conflict Resolution* 50 (6): 783-808.

Elder, J. and P.E. Kennedy. 2001. Testing for unit roots: What should students be taught? *Journal of Economic Education* 31 (2): 137-146.

Elster, J. 1989. *Nuts and Bolts for the Social Sciences*. Cambridge: Cambridge University Press.

Feaver, P. D. and C. Gelpi. 2004. *Choosing your battles: American civil-military relations and the use of force*. Princeton, NJ: Princeton University Press.

Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Stanford: Stanford University Press.

Fox, G. and E.N. Phillips. 2003. Interrelationship between presidential approval, presidential votes and macroeconomic performance, 1948-2000. *Journal of Macroeconomics* 25: 411-424.

Fuller, W.A. 1976. *Introduction to statistical time-series*. New York: John Wiley and Sons.

Gaines, B.J. 2002. Where's the rally? Approval and trust of the president, cabinet, congress, and government since September 11. *PS: Political Science and Politics* 35 (3): 531-536.

Gartner, S.S. 2008. The multiple effects of casualties on public support of war: An experimental approach. *American Political Science Review* 102 (1): 95-106.

Gartner, S.S. and G.M. Segura. 1998. War, casualties and public opinion. *Journal of Conflict Resolution* 42 (3): 278-300.

Gartner, S.S. and G.M. Segura. 2000. Race, casualties and opinion in the Vietnam War. *Journal of Politics* 62 (1):115-146.

Gelpi, C., P.D. Feaver and J. Reifler. 2006. Success matters: Casualty sensitivity and the war in Iraq. *International Security* 30 (3): 7-46.

Geys, B. and J. Vermeir. 2008a. Taxation and presidential approval: Separate effects from tax burden and tax structure turbulence? *Public Choice* 135 (3-4): 301-317.

Geys, B. and J. Vermeir. 2008b. The political cost of taxation: New evidence from German popularity ratings, *Electoral Studies*, forthcoming.

Goodhardt, C.A.E. and R.J. Bhansali. 1970. Political economy. *Political Studies* 18: 43-106.

Gronke, P. and B. Newman. 2003. FDR to Clinton, Mueller to ?: A field essay on presidential approval. *Political Research Quarterly* 56 (4): 501-512.

Guilkey, D.K. and P. Schmidt. 1991. An interpolation test for a unit root in the presence of drift. *Biometrika* 78 (4): 809-815.

Hall, A. 1994. Testing for a unit root in time series with pretest data-based model selection. *Journal of Business and Economic Statistics* 12: 461-470.

Harmon-Jones, E. and J. Mills. 1999. *Cognitive dissonance: Progress on a pivotal theory in social psychology*. Washington DC: American Psychological Association.

Hetherington, M.J. and M. Nelson. 2003. Anatomy of a rally effect: George W. Bush and the war on terrorism. *PS: Political Science and Politics* 36 (1): 37-42.

Jentleson, B.W. 1992. The pretty prudent public: Post post-Vietnam American opinion on the use of military force. *International Studies Quarterly* 36: 49-74.

Jentleson, B.W. and R.L. Britton. 1998. Still pretty prudent: Post Cold War American public opinion on the use of military force. *Journal of Conflict Resolution* 42 (4): 395-417.

Karol, D. and E. Miguel. 2007. Iraq war casualties and the 2004 US presidential election. *Journal of Politics* 69 (3): 633-648.

Kernell, S. 1978. Explaining presidential popularity. *American Political Science Review* 72: 506-522.

Krasner, S.D. 1988. Sovereignty: An institutional perspective. *Comparative Political Studies* 21 (1): 66-94.

Kriner, D.L. 2006. Examining variance in presidential approval: The case of FDR in World War II. *Public Opinion Quarterly* 70 (1): 23-47.

Krosnick, J.A. and L.A. Brannon. 1993. The impact of the Gulf War on the ingredients of presidential evaluations: Multidimensional effects of political involvement. *American Political Science Review* 87 (4): 963-975.

Lai, B. and D. Reiter. 2005. Rally 'Round the Union Jack? Public opinion and the use of force in the United Kingdom, 1948-2001. *International Studies Quarterly* 49: 255-272.

Lakatos, I. 1981. *Proofs and refutations: The logic of mathematical discovery*. Cambridge: Cambridge University Press.

Larson, E. 2006. *Casualties and consensus: The historical role of casualties in domestic support for US wars and military operations*, Santa Monica: RAND.

Maddala, G.S. and I.M. Kim. 2004. *Unit roots, cointegration and structural change*. Cambridge: Cambridge University Press.

Mahoney, J. 2000. Path dependence in historical sociology. *Theory and Society* 29: 507-548.

Marra, R.F., C.W. Ostrom and D.M. Simon. 1990. Foreign policy and presidential popularity: Creating windows of opportunity in the perpetual election. *Journal of Conflict Resolution* 34 (4): 588-623.

Mueller, J.E. 1973. *War, presidents and public opinion*. New York: Wiley.

Mueller, J.E. 1994. *Policy and opinion in the Gulf War*. Chicago: University of Chicago Press.

Münster, J. 2007. Simultaneous inter- and intra-group conflicts. *Economic Theory* 32 (2): 333-352.

Nicholson, S.P., G.M. Segura and N.D. Woods. 2002. Presidential approval and the mixed blessing of divided government. *Journal of Politics* 64 (4): 701-720.

Nordhaus, W.D. 2002. War with Iraq: Costs, consequences and alternatives. *American Academy of Arts and Sciences Committee on International Security Studies*, 51-85.

Olsen, J.P. 2005. Maybe it is time to rediscover bureaucracy. *Journal of Public Administration Research and Theory* 16: 1-24.

Oneal, J.R. and A.L. Brian. 1995. The rally round the flag effect in US foreign policy crises 1950-1985. *Political Behavior* 17 (4): 379-401.

Ostrom C.W. and D.M. Simon. 1985. Promise and performance: A dynamic model of presidential popularity. *American Political Science Review* 79: 334-358.

Pierson, P. 2000a. Not just what, but when: Timing and sequence in political processes. *Studies in American Political Development* 14: 72-92.

Pierson, P. 2000b. Path dependence, increasing returns, and the study of politics. *American Political Science Review* 94 (2): 251-267.

Powell, G.B. and G.D. Whitten. 1993. A cross-national analysis of economic voting: Taking account of the political context. *American Journal of Political Science* 37: 391-414.

Ramsey, J.B. 1969. Tests for specification error in classical least squares regression analysis. *Journal of the Royal Statistical Society* B31: 250-271.

Sapolsky, H.M. and J. Shapiro. 1996. Casualties, technology, and America's future wars. *Parameters* 26 (2): 119-127.

Schmitt, H. and A. Wüst. 2006. The extraordinary Bundestag election of 2005: The interplay of long-term trends and short-term factors. *German Politics and Society* 24 (1): 27-46.

Schwartz, B. 1994. *Casualties, public opinion and US military intervention: Implications for US regional deterrence strategies*. Santa Monica: RAND.

Schwert, G.W. 1989. Test for unit roots: A Monte Carlo investigation. *Journal of Business and Economics Statistics* 7: 147-159.

Scott, W.R. 2001. *Institutions and Organizations (2nd Edition)*. Thousand Oaks: Sage.

Sigelman, L. and P.J. Conover. 1981. The dynamics of presidential support during international conflict situations: The Iranian hostage crisis. *Political Behavior* 3 (4): 303-318.

Smyth, D.J. and P. Dua. 1989. The public's indifference map between inflation and unemployment: Empirical evidence for the Nixon, Ford, Carter and Reagan Presidencies. *Public Choice* 60: 71-85.

Swidler, A. 1986. Culture in action: Symbols and strategies. *American Sociological Review* 51: 273-286.

Thelen, K. 1999. Historical Institutionalism in Comparative Politics. *Annual Review of Political Science* 2: 369-404.

Thelen, K. 2004. *How Institutions Evolve*. Cambridge: Cambridge University Press.

Thelen K. and S. Steinmo. 1992. Historical institutionalism in comparative politics. In Steinmo S., K. Thelen and F. Longstreth (eds.) *Structuring Politics: Historical Institutionalism in Comparative Analysis*. Pp. 1-32. New York: Cambridge University Press.

Voeten, E. and P.R. Brewer. 2006. Public opinion, the war in Iraq and presidential accountability. *Journal of Conflict Resolution* 50 (5): 809-830.

Zaller, J. 1998. Monica Lewinsky's contribution to political science. *PS: Political Science and Politics* 31: 182-189.

Table 1: Results from unit-root tests (using Augmented Dickey-Fuller tests)

Variable	**# lags**	**τ_μ**	**Inference**
Presidential Approval [b]	1	-4.63***	Stationary
Presidential Approval (log transformed) [a]	0	-4.18***	Stationary
Growth [b]	11	-5.35***	Stationary
Unemployment [b]	11	-2.55***	Stationary
Inflation [a]	12	-1.22	Unit root
Inflation, first differences [a]	11	-6.35***	Stationary

Note: Critical values $\tau_{\mu,}$ are in Fuller (1976). We use interpolated critical values as provided by Stata. Inclusion of a drift parameter (or constant term) and time trend were based on statistical significance of these variables. Superscript [a] indicates the absence of both the constant term and a time trend while superscript [b] implies inclusion of a constant term only.

Table 2: Determinants of US Presidential approval ratings 1948-2006

	(1) **1 quarter**	**(2)** **2 quarters**	**(3)** **3 quarters**
Intercept	21.937 *** (5.22)	23.794 *** (5.81)	23.834 *** (5.60)
Approval (lagged)	0.734 *** (19.95)	0.716 *** (20.40)	0.715 *** (19.82)
Growth	0.219 *** (2.76)	0.219 *** (2.80)	0.227 *** (2.91)
Unemployment	-1.287 *** (-3.67)	-1.432 *** (-4.13)	-1.429 *** (-3.94)
Inflation (first difference)	-0.594 (-1.49)	-0.644 * (-1.67)	-0.742 (-1.57)
Honeymoon	0.429 (0.80)	0.421 (0.78)	0.421 (0.78)
Election	2.232 *** (2.83)	2.347 *** (2.89)	2.268 *** (2.80)
Divided Government	2.463 (1.62)	2.223 (1.47)	2.259 (1.47)
Watergate	-11.643 *** (-5.67)	-11.915 *** (-6.06)	-11.786 *** (-5.97)
Iran-Contra	-7.461 *** (-9.94)	-7.467 *** (-10.01)	-7.415 *** (-9.81)
Lewinsky	2.532 ** (1.98)	2.653 ** (2.11)	2.636 ** (2.10)
Korea casualties (log)	-1.101 *** (-3.03)	-1.274 *** (-3.55)	-1.256 *** (-3.26)
Korea casualties * WarStart	0.854 *** (2.95)	0.835 *** (3.43)	0.584 (1.51)
Korea casualties (log) * NewAdmin	1.439 *** (2.95)	1.566 *** (3.24)	1.556 *** (3.18)
Vietnam casualties (log)	-1.881 *** (-4.10)	-2.118 *** (-4.65)	-2.041 *** (-4.04)
Vietnam casualties (log)* WarStart	-0.210 (-1.09)	-0.357 (-1.64)	-0.100 (-0.36)
Vietnam casualties (log)* NewAdmin	1.144 (1.55)	1.375 * (1.87)	1.297 * (1.67)
Iraq casualties (log)	-0.805 ** (-2.07)	-1.003 *** (-2.88)	-1.013 *** (-2.83)
Iraq casualties (log) * WarStart	0.614 ** (2.38)	1.828 *** (2.86)	1.215 * (1.69)
Gulfdum	24.061 *** (13.82)	23.990 *** (13.82)	23.990 *** (13.63)
Iran hostage	8.617 * (1.92)	8.271 * (1.84)	8.330 * (1.84)
9/11	26.410 *** (18.22)	26.419 *** (17.94)	26.317 *** (17.63)
Administration dummies F (10, 191)	YES 3.62 ***	YES 4.28 ***	YES 3.88 ***
Adj. R^2 AR(1) RESET³ Heteroscedasticity	91.64 0.03 1.34 1.77	92.02 0.01 1.69 1.52	91.78 0.03 1.52 1.70

Note: N = 223. Numbers between brackets are t-values. *** significant at 1%; ** at 5% and * at 10%. AR(1) is the Breusch-Godfrey test for first-order autocorrelation. RESET³ represents Ramsey's (1969) test for functional form misspecification while 'Heteroscedasticity' shows the Breusch-Pagan test for heteroscedastic disturbances.

Appendix A: Summary statistics

Table A1: Summary Statistics (N = 223)

Variable	Mean	Standard deviation	Minimum	Maximum
Presidential Approval	54.43	12.56	23.33	87.13
Growth	3.48	4.08	-10.4	17.4
Inflation	3.76	2.97	-2.79	14.43
Unemployment	5.63	1.50	2.57	10.67
Honeymoon	0.27	0.75	0	3
Election	0.07	0.25	0	1
Divided Government	0.57	0.50	0	1
Watergate	0.02	0.15	0	1
Iran-Contra	0.01	0.09	0	1
Lewinsky	0.02	0.15	0	1
Korea casualties (log)	0.54	1.91	0	8.87
Vietnam casualties (log)	1.30	2.53	0	8.60
Iraq casualties (log)	0.35	1.29	0	5.66
Iran Hostage	0.01	0.08	0	1
9/11	0.004	0.07	0	1